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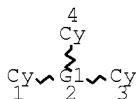
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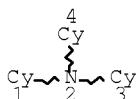
=> d que 138
L3 STR



VAR G1=N/P
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L4 SCR 1609 OR 1741
L5 SCR 2077
L6 SCR 2127
L7 SCR 1918
L8 29859 SEA FILE=REGISTRY SSS FUL L3 AND L4 AND L6 NOT (L5 OR L7)
L9 STR



NODE ATTRIBUTES:

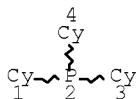
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 DEFAULT ECLEVEL IS LIMITED

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 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L10 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L13	1 SEA FILE=REGISTRY SPE=ON	ABB=ON	PLU=ON	603-35-0/RN
L14	471 SEA FILE=REGISTRY SPE=ON	ABB=ON	PLU=ON	603-35-0/CRN
L15	1 SEA FILE=REGISTRY SPE=ON	ABB=ON	PLU=ON	603-34-9/RN
L16	115 SEA FILE=REGISTRY SPE=ON	ABB=ON	PLU=ON	603-34-9/CRN
L18	25 SEA FILE=REGISTRY SUB=L8	SSS FUL	L9 AND L10	
L19	40 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L18
L20	938 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L14
L21	24013 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L13
L22	2344 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L15
L23	204 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L16
L24	322 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	(L20 OR L21) AND (L22 OR L23)
L25	67297 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	"POLYMERS, PROPERTIES"+PFT, NT/CT
L26	1 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L24 AND L25
L27	72 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L24 AND (OLIGOMER? OR POLYMER?)
L28	2 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L27 AND DEV/RL
L29	5 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L27 AND OPTIC?/SC, SX
L30	0 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L27 AND OPTICAL DEVICE?
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L32	11 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L27 AND L31
L33	23 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L24 AND L31
L34	27 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L26 OR (L28 OR L29 OR L30) OR (L32 OR L33)
L35	20 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L34 AND (1840-2006) /PRY,AY,PY

L36 21 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L19 AND (1840-2006
)/PRY,AY,PY
 L37 2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L35 AND L36
 L38 21 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L36 OR L37)

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 10:21:48 ON 09 JUN 2010
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FILE COVERS 1907 - 9 Jun 2010 VOL 152 ISS 24
FILE LAST UPDATED: 8 Jun 2010 (20100608/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2010.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

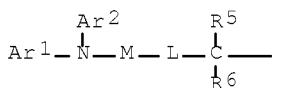
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L38 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:1083082 HCAPLUS Full-text
DOCUMENT NUMBER: 147:407568
TITLE: Radiation-induced acid generators, method for generation of acids and their use in radiation-curable resin compositions
INVENTOR(S): Kanno, Masaki; Tsushima, Nozomi
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 71pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007246801	A	20070927	JP 2006-74286 ---<-->---	20060317
PRIORITY APPLN. INFO.:			JP 2006-74286	20060317

<--

OTHER SOURCE(S): MARPAT 147:407568
 ED Entered STN: 27 Sep 2007
 GI



AB The generators are represented by $[\text{R}1\text{a}\text{R}2\text{b}\text{R}3\text{c}\text{R}4\text{dW}] + \text{X}-$, wherein R1, R2, R3, R4 = alkyl, aryl, heterocycle group, alkoxy, aryloxy, heterocycloxy, acyl, carbonyloxy, oxycarbonyl, and alkenyl; W = S, S = O, P, N, and I; a, b, c, d = 0-3 integer; a+b+c+d = valent value of W; X = anion; R1, R2, R3, R4 can optionally form a ring; at least one of R1, R2, R3, R4 is a group represented by formula I, wherein R5, R6 = H, alkyl, aryl, heterocycle group, alkoxy, aryloxy, heterocycloxy, acyl, carbonyloxy, oxycarbonyl, and alkenyl; Ar1, Ar2 = aryl, heterocycle group; M = divalent aromatic hydrocarbon group, or divalent heterocycle group; L = $-\text{C}(\text{O})-$, or directly connected; R5, R6 can optionally form a ring. Thus, 5.00 g 4,4'-dimethyltriphenylamine was reacted with 4.63 g bromoacetyl bromide in dichloromethane in the presence of aluminum chloride to give 4.33 g 2-bromo-1-[4-(di-p-tolyl-amino)phenyl]ethanone, 2.0 g of which was reacted with 0.63 g di-Me sulfide in dichloromethane at room temperature for 24 h to give 1.99 g [2-[4-(di-p-tolyl-amino)-phenyl]-2-oxo-ethyl]- dimethylsulfonium bromide, 1.0 g of which was dissolved in water, added with 31.13 g 4.68% sodium tetrakis(pentafluorophenyl)borate solution, stirred at room temperature for 10 min, to give 1.90 g [2-[4-(di-p-tolyl-amino)-phenyl]-2-oxo-ethyl]-dimethylsulfonium tetrakis(pentafluorophenyl)borate (A). A (0.6 mmol) was mixed with 10 g UVR 6110 (3,4-epoxycyclohexylmethyl-3',4'- epoxycyclohexanecarboxylate) to give a radiation-curable composition, which was cast on an aluminum plate, irradiated with light to give a tack-free film.

IT 950854-48-5

(radiation-induced acid generators, method for generation of acids and their use in radiation-curable resin compns.)

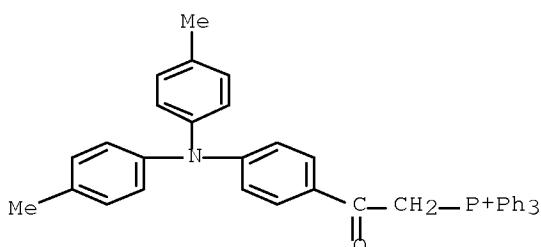
RN 950854-48-5 HCPLUS

CN Phosphonium, [2-[4-[bis(4-methylphenyl)amino]phenyl]-2-oxoethyl]triphenyl-, tetrakis(2,3,4,5,6-pentafluorophenyl)borate(1-) (1:1) (CA INDEX NAME)

CM 1

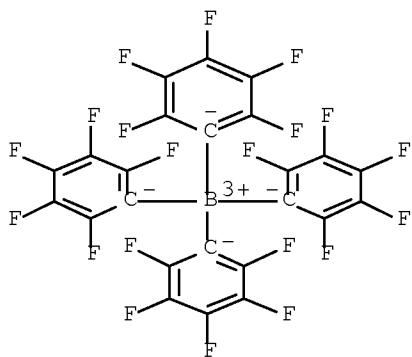
CRN 950854-47-4

CMF C40 H35 N O P



CM 2

CRN 47855-94-7
 CMF C24 B F20
 CCI CCS

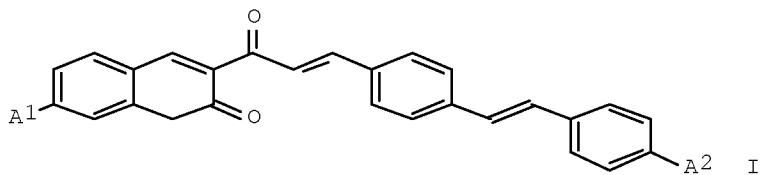


CC 37-6 (Plastics Manufacture and Processing)
 IT 950765-45-4 950765-46-5 950854-48-5 950854-50-9
 950854-52-1
 (radiation-induced acid generators, method for generation of acids
 and their use in radiation-curable resin compns.)

L38 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2007:745469 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:213466
 TITLE: Diphenylethylene-bonded coumarin dye and its
 synthesis and application
 INVENTOR(S): Wu, Feipeng; Li, Xue; Shi, Mengquan; Zhang,
 Yunlong; Zhao, Yuxia
 PATENT ASSIGNEE(S): Technical Institute of Physics and Chemistry,
 Chinese Academy of Sciences, Peop. Rep. China
 SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, 15pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1990604	A	20070704	CN 2005-10135231 ---	20051227
CN 100469841	C	20090318		
PRIORITY APPLN. INFO.:			CN 2005-10135231 ---	20051227

OTHER SOURCE(S): CASREACT 147:213466; MARPAT 147:213466
 ED Entered STN: 10 Jul 2007
 GI

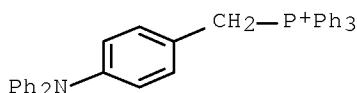


AB The title dye I (A1, A2 = alkyl, alkoxy, amino, heterocyclic, substituted phenyl) is synthesized (1) mixing coumarin compound having A1 group (e.g., 3-Acetyl-7-(diethylamino)coumarin) with p-benzenedialdehyde in mol ratio 1:2-5 and reacting in the presence of catalyst at 25-150° to form a A1 group-containing coumarin dye intermediate; (2) mixing A2 group-substituted benzene, potassium halide, Ph₃P, HCHO, CH₃COOH, H₂O and CHCl₃, reacting or mixing A2-substituted benzyl chloride, Ph₃P and an organic solution and heating to reflux; (3) mixing the A1 group-containing coumarin dye intermediate with A2 group-containing phosphonium compound, reacting in the presence of a catalyst in an organic solvent, separating and purifying to give the dye final product. The title dye can be used as photosensitizer in biphotonic polymerization

IT 944544-92-7
 (preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

RN 944544-92-7 HCPLUS

CN Phosphonium, [(4-(diphenylamino)phenyl)methyl]triphenyl-, chloride (1:1) (CA INDEX NAME)



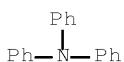
● Cl⁻

IT 603-34-9 603-35-0, Triphenyl phosphine, reactions

(preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

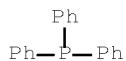
RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 73

ST diphenylethylene coumarin dye prepn photosensitizer two photon polymer

IT Polyesters
 (acrylates, polymers with acrylates; preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT Dyes
 (coumarin; preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT Soybean oil
 (epoxidized, acrylate, polymers with acrylates; preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT Polymerization
 (photopolymn., two-photon; preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization.)

IT Polymerization catalysts
 (photopolymn.; preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT Light-sensitive materials
 (preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT 944544-88-1P 944544-90-5P 944544-93-8P
 (preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT 80-62-6DP, Methyl methacrylate, polymers with polyester acrylate and acrylates 868-77-9DP, 2-Hydroxyethyl methacrylate, polymers with epoxidized soybean oil acrylate and acrylates 51728-26-8DP, Ethoxylated pentaerythritol tetraacrylate, polymers with polyester acrylate and acrylates 60506-81-2DP, Dipentaerythritol pentaacrylate, polymers with epoxidized soybean oil acrylate and acrylates 944544-94-9P, Glycidyl acrylate-pentaerythritol triacrylate-N-vinylcarbazole copolymer 944544-95-0P, Glycidyl acrylate-phenoxyethyl acrylate-trimethylolpropane triacrylate copolymer
 (preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT 3462-97-3P 392662-56-5P 906374-20-7P 944544-87-0P 944544-89-2P
 944544-91-6P 944544-92-7P
 (preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT 906374-18-3P
 (preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT 50-00-0, Formaldehyde, reactions 91-66-7 603-34-9
 603-35-0, Triphenyl phosphine, reactions 623-27-8,
 1,4-Benzenedicarboxaldehyde 824-94-2 20280-93-7 64267-19-2

74696-95-0 74696-96-1

(preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

IT 526196-98-5P 760153-15-9P

(preparation of diphenylethylene-bonded coumarin dye used as photosensitizer in two-photon polymerization)

L38 ANSWER 3 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:725600 HCPLUS Full-text

DOCUMENT NUMBER: 147:176872

TITLE: Synthesis and strong two-photon absorption of carbazole derivatives

AUTHOR(S): Liu, Guohua; Yang, Ping; Jiang, Wanli; Guo, Xiaozhi; Xu, Guibao; Jiang, Xuezhang; Shen, Liang; Wang, Xiaomei

CORPORATE SOURCE: College of Material Science and Engineering, Suzhou University, Suzhou, 215006, Peop. Rep. China

SOURCE: Gongneng Cailiao (2005), 36(4), 600-603
CODEN: GOCAEA; ISSN: 1001-9731

PUBLISHER: Gongneng Cailiao Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 26 Jul 2006

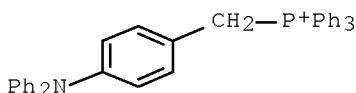
AB Two novel chromophores with carbazole as mol. focal point bearing either triphenylamine or oxadiazole unit at the periphery comparatively (3,6-Bis(4-diphenylstyryl)-9H-carbazole and 3,6-Bis[4-(5-ethoxy-1,3,4-oxadiazol-2-yl)styryl]-9H-carbazole named as NT-G1 and NO-G1, resp.) were synthesized and characterized. To comparatively study the linear and 2-photon optical properties, absorption/steady-state and time-resolved fluorescence spectra and relative fluorescence quantum yields were examined. Pumped by femto-second laser at 730-800 nm, strong up-conversion emissions with the central wavelength at 453 nm for NT-G1 and 500 nm for NO-G1 in DMF were observed. Chromophore NO-G1 possessed strong 2-photon absorption (TPA) with the cross-section (δ TPA) as high as 454 GM and 2-photon emission cross-section (δ TPE) being as 21 times as that of fluorescein reference. As compared with NT-G1, NO-G1 had more than 2-fold increase in the 2-photon absorption (TPA) cross section, which was probably accounted for the resonance enhancement in the excited states due to NO-G1's longer conjugation length, planar geometry, and mol. pn-structure alike. Co-passivated porous Si (CPS) was prepared by stain etching in Co(NO₃)₂-HF solution. The Si tips with size 0.5-1.5 μ m were distributed vertically on the surface of the CPS sample. There were rounded holes with size 0.1-0.5 μ m in diameter on the top of part Si tips. The area d. of the Si tips was about 1.0 x 108/cm² on the surface of the CPS sample. The thickness of the CPS sample was about 2 μ m. XPS and EDS results showed that Co existed on the surface of the CPS sample and nearly no Co diffused into the Si body. The CPS exhibited good reliability and reproducibility in field emission properties, with the turn-on elec. field intensity about 2.3 V/ μ m. The emission current reached 30 μ A/cm² at elec. field intensity 5.4 V/ μ m.

IT 943987-88-0P

(synthesis and two-photon absorption of carbazole derivs.)

RN 943987-88-0 HCPLUS

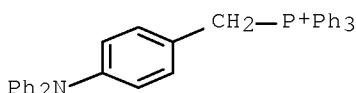
CN Phosphonium, [[4-(diphenylamino)phenyl]methyl]triphenyl-, iodide (1:1)
(CA INDEX NAME)



● I -

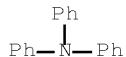
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 338426-44-1P 870789-47-2P 873691-38-4P 943987-88-0P
 (synthesis and two-photon absorption of carbazole derivs.)

L38 ANSWER 4 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:1107642 HCPLUS Full-text
 DOCUMENT NUMBER: 144:497312
 TITLE: Effects on the two-photon excited fluorescence of thiophene derivatives
 AUTHOR(S): Xia, Guang-Ming; Lu, Ping; Liu, Shi-Quan
 CORPORATE SOURCE: School of Chemistry and Chemical Engineering, Jinan University, Jinan, 250022, Peop. Rep. China
 SOURCE: Acta Chimica Slovenica (2005), 52(3), 336-340
 CODEN: ACSLE7; ISSN: 1318-0207
 PUBLISHER: Slovenian Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 17 Oct 2005
 AB Three new thiophene-based organic luminescence compds. named as 2,5-bis(p-N,N-diethylaminostyryl)thiophene (BEST), 2,5-bis(p-N,N-diphenylaminostyryl)thiophene (BPST) and 2,5-bis(p-N-carbazoylstyryl)thiophene (BCST) were synthesized. All of their single-photon excited fluorescence (SPEF) locate in the range of .apprx.530 nm with the quantum yield around 40%, and the corresponding lifetime was .apprx.1 ns. The target compds. show strong solvatochromism in their SPEF spectra except BCST. There is no obvious change for the peak wavelength in the linear spectra of BCS in different polar solvent. Excited by a fs laser at 800 nm, strong up-converted fluorescence of target compds. was detected. The profile of two-photon excited fluorescence (TPEF) was likely with that of SPEF. The two-photon absorption (TPA) cross sections of the compds. were determined by TPEF method. All target compds. show large TPA cross section in the authors' expts. So that thiophene derives may have good TPA properties.
 IT 183994-95-8P
 (effects on two-photon excited fluorescence of thiophene derivs.)
 RN 183994-95-8 HCPLUS
 CN Phosphonium, [{4-(diphenylamino)phenyl}methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)

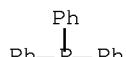


● Br -

IT 603-34-9, Triphenylamine 6399-81-1
 (effects on two-photon excited fluorescence of thiophene derivs.)
 RN 603-34-9 HCPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 6399-81-1 HCPLUS
 CN Phosphine, triphenyl-, hydrobromide (1:1) (CA INDEX NAME)



● HBr

CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 22, 28, 77
 IT 4181-05-9P 39529-72-1P, Diethylaminobenzaldehyde 110677-45-7P
 183994-95-8P 392662-56-5P 631869-00-6P
 (effects on two-photon excited fluorescence of thiophene derivs.)
 IT 109-72-8, n-Butyllithium, reactions 110-02-1, Thiophene
 603-34-9, Triphenylamine 4282-31-9,
 2,5-Thiophenedicarboxylic acid 6399-81-1
 (effects on two-photon excited fluorescence of thiophene derivs.)
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L38 ANSWER 5 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:295180 HCPLUS Full-text
 DOCUMENT NUMBER: 144:22769
 TITLE: New thiophene derivatives with two-photon excited
 fluorescence
 AUTHOR(S): Wang, Wei; Xia, Guang Ming; Xu, Gui Bao; Liu, Zhi
 Qiang; Fang, Qi
 CORPORATE SOURCE: State Key Laboratory of Crystal Materials,
 Shandong University, Jinan, 250100, Peop. Rep.
 China
 SOURCE: Chinese Chemical Letters (2005), 16(1),
 85-88
 CODEN: CCLEE7; ISSN: 1001-8417
 PUBLISHER: Chinese Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 144:22769
 ED Entered STN: 07 Apr 2005

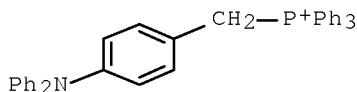
AB Two new compds., 2,5-bis[4-(N,N-diphenylamino)styryl]thiophene (BPST) and 2,5-bis[4-(N,N-diethylamino)styryl]thiophene (BEST) were synthesized by Wittig reaction of 2,5-thiophenedialdehyde with appropriate (aminobenzyl)triphenylphosphonium bromide. The two-photon absorption cross section of BPST was 256·10-50 cm⁴·s/photon, when it was excited by an 800 nm femtosecond laser.

IT 183994-95-8

(preparation of bis(aminostyryl)thiophenes with two-photon excited fluorescence)

RN 183994-95-8 HCPLUS

CN Phosphonium, [[4-(diphenylamino)phenyl]methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)



● Br-

CC 27-8 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 22

IT 932-95-6, 2,5-Thiophenedialdehyde 183994-95-8
392662-56-5

(preparation of bis(aminostyryl)thiophenes with two-photon excited fluorescence)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 6 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:101851 HCPLUS Full-text

DOCUMENT NUMBER: 142:335915

TITLE: Rates and equilibria of the reactions of tertiary phosphanes and phosphites with benzhydrylium ions

AUTHOR(S): Kempf, Bernhard; Mayr, Herbert

CORPORATE SOURCE: Department Chemie und Biochemie der Ludwig-Maximilians-Universitaet Muenchen, Munich, 81377, Germany

SOURCE: Chemistry--A European Journal (2005), 11(3), 917-927

PUBLISHER: CODEN: CEUJED; ISSN: 0947-6539

DOCUMENT TYPE: Wiley-VCH Verlag GmbH & Co. KGaA

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:335915

ED Entered STN: 07 Feb 2005

AB The kinetics of the reactions of benzhydrylium ions and quinone methides with eight tertiary phosphines and two phosphites were investigated photometrically. Various benzhydrylium tetrafluoroborates [ArAr₁CH⁺] [BF₄⁻] (Ar, Ar₁ = 4-substituted Ph, 2,3-dihydro-5-benzofuranyl, 1,2,3,4-tetrahydro-6-quinolinyl, 1H-2,3-dihydro-5-indolyl) react with PR₃ (R = 4-C₁C₆H₄, Ph, 4-MeC₆H₄, 4-MeOC₆H₄, 4-Me₂NC₆H₄, iPr, cyclo-C₆H₁₁, Bu, OPh, OBu) affording

corresponding quaternary salts $[ArAr_1CHP+R_3]+[BF_4]-$; the rate consts. and activation parameters of the quaternization reaction were determined. The nucleophilicity parameters N and slope parameters s of nucleophiles PR₃ were derived according to the equation: $\log k_{20^\circ C} = s(N + E)$. Correlations of the nucleophilicity parameters N with pK_{Ha} and σ_P values as well as with the rate consts. of reactions with other electrophiles are discussed. In some cases, equilibrium consts. for the formation of phosphonium ions were measured, which allow one to determine the Marcus intrinsic barriers of $\Delta G_0 = 58 \text{ kJ mol}^{-1}$ for the reactions of triarylphosphines with benzhydrylium ions. The N parameters [5.5 for P(OPh)₃, 10.36 for P(OBu)₃, 14.33 for PPh₃, 15.49 for PBu₃, 18.39 for P(4-Me₂NC₆H₄)₃] are compared with the reactivities of other classes of nucleophiles.

IT 848629-15-2P

(kinetics of quaternization of phosphorus nucleophiles by benzhydrylium cations and nucleophilicity parameters for phosphines and phosphites)

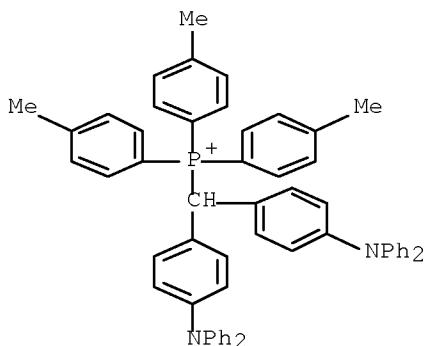
RN 848629-15-2 HCPLUS

CN Phosphonium, [bis[4-(diphenylamino)phenyl]methyl]tris(4-methylphenyl)-, tetrafluoroborate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 848629-14-1

CMF C58 H50 N2 P

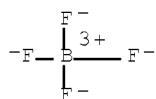


CM 2

CRN 14874-70-5

CMF B F4

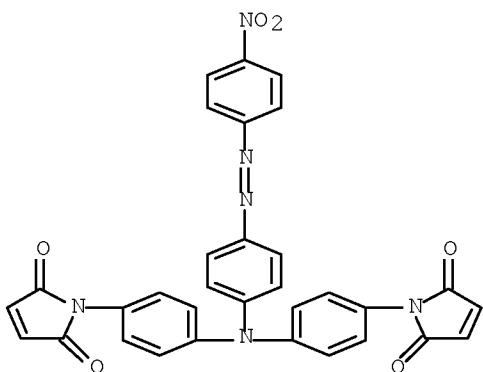
CCI CCS

CC 22-4 (Physical Organic Chemistry)
Section cross-reference(s): 29

IT 848629-05-0P 848629-07-2P 848629-09-4P 848629-11-8P
 848629-13-0P 848629-15-2P 848629-17-4P 848629-19-6P
 848629-21-0P 848629-23-2P 848629-25-4P 848629-27-6P
 848629-29-8P
 (kinetics of quaternization of phosphorus nucleophiles by benzhydrylium cations and nucleophilicity parameters for phosphines and phosphites)

OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)
 REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

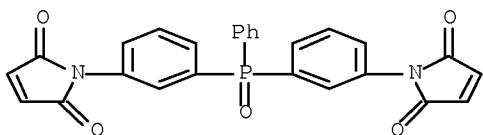
L38 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2004:988776 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 142:114945
 TITLE: Low loss second-order non-linear optical crosslinked polymers based on a phosphorus-containing maleimide
 AUTHOR(S): Chen, Chih-Ping; Huang, Gwo-Su; Jeng, Ru-Jong;
 Chou, Che-Chung; Su, Wen-Chiung; Chang, Huey-Ling
 CORPORATE SOURCE: Department of Chemical Engineering, National Chung Hsing University, Taichung, 402, Taiwan
 SOURCE: Polymers for Advanced Technologies (2004), 15(10), 587-592
 CODEN: PADTE5; ISSN: 1042-7147
 PUBLISHER: John Wiley & Sons Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 18 Nov 2004
 AB A series of crosslinked organic and organic/inorg. polymers based on maleimide chemical have been investigated for second-order non-linear optical (NLO) materials with excellent thermal stability and low optical loss. Two reactive chromophores (maleimide-containing azobenzene dye and alkoxy silane-containing azobenzene dye) were incorporated into a phosphorus-containing maleimide polymer, resp. The selection of the phosphorus-containing maleimide polymer as the polymeric matrixes provides enhanced solubility and thermal stability, and excellent optical quality. Moreover, a full interpenetrating network (IPN) was formed through simultaneous addition reaction of the phosphorus-containing maleimide, and sol-gel process of alkoxy silane dye (ASD). Atomic force microscopy (AFM) results indicate that the inorg. networks are distributed uniformly throughout the polymer matrixes on a nano-scale. The silica particle sizes are well under 100 nm. Using in situ contact poling, the r_{33} coeffs. of 2.2-17.0 pm/V have been obtained for the optically clear phosphorus-containing NLO materials. Excellent temporal stability (100°C) and low optical loss (0.99-1.71 dB/cm; 830 nm) were also obtained for these phosphorus-containing materials.
 IT 820255-12-7P
 (low loss second-order non-linear optical crosslinked polymers based on a phosphorus-containing maleimide)
 RN 820255-12-7 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 1,1'-([[4-[(4-nitrophenyl)azo]phenyl]imino]di-4,1-phenylene]bis-, polymer with 1,1'-(phenylphosphinylidene)di-3,1-phenylene]bis[1H-pyrrole-2,5-dione] (9CI) (CA INDEX NAME)
 CM 1
 CRN 500615-46-3
 CMF C32 H20 N6 O6



CM 2

CRN 347308-29-6

CMF C26 H17 N2 O5 P



CC 37-5 (Plastics Manufacture and Processing)

Section cross-reference(s): 73

IT 347308-33-2P 820255-12-7P 820255-14-9P 820260-38-6P
(low loss second-order non-linear optical crosslinked polymers
based on a phosphorus-containing maleimide)OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS
RECORD (10 CITINGS)REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L38 ANSWER 8 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:876843 HCPLUS [Full-text](#)

DOCUMENT NUMBER: 141:372807

TITLE: Light-sensitive material compositions for
lithographic printing plate precursors

INVENTOR(S): Shibuya, Akinori

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 87 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004295012	A	20041021	JP 2003-90715 --- JP 2003-90715	20030328 --- 20030328
PRIORITY APPLN. INFO.:				

OTHER SOURCE(S): MARPAT 141:372807

ED Entered STN: 22 Oct 2004

AB The title composition contains a photosensitizing dye, and a light-sensitive radical-, acid-, or base-generator, and compds. irreversibly changing the phys. properties by reacting with the generated acid, radical, or base, wherein the photosensitizing dye has general structure Dye-L-M(Dye = main photosensitizing dye group; L = 2-valent connecting organic group; M = acceptor having lower reduction potential than the oxidation potential of Dye). The composition shows high sensitivity toward laser beam generated by inexpensive semiconductor laser apparatus and good handling under light and provides printing plates of high printing durability.

IT 778610-61-0P

(photosensitizing dye in light-sensitive material compns.)

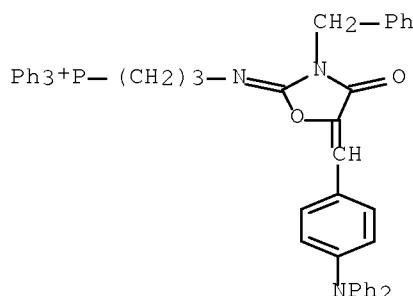
RN 778610-61-0 HCPLUS

CN Phosphonium, [3-[[5-[[4-(diphenylamino)phenyl]methylene]-4-oxo-3-(phenylmethyl)-2-oxazolidinylidene]amino]propyl]triphenyl-, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 778610-60-9

CMF C50 H43 N3 O2 P

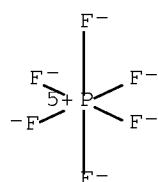


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



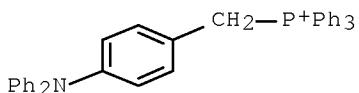
IC ICM G03F007-004
 ICS G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41
 IT 778610-34-7P 778610-37-0P 778610-40-5P 778610-42-7P
 778610-44-9P 778610-46-1P 778610-48-3P 778610-50-7P
 778610-52-9P 778610-55-2P 778610-57-4P 778610-59-6P
~~778610-61-0P~~ 778610-63-2P 778610-65-4P 778610-67-6P
 778610-69-8P 778610-71-2P 778610-74-5P 778610-78-9P
 (photosensitizing dye in light-sensitive material compns.)

L38 ANSWER 9 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2004:783747 HCPLUS Full-text
 DOCUMENT NUMBER: 141:412439
 TITLE: Electronic modulation of dithienothiophene (DTT)
 as π -center of D- π -D chromophores on optical
 and redox properties: Analysis by UV-Vis-NIR and
 Raman spectroscopies combined with
 electrochemistry and quantum chemical DFT
 calculations
 AUTHOR(S): Ponce Ortiz, Rocio; Ruiz Delgado, Mari Carmen;
 Casado, Juan; Hernandez, Victor; Kim, Oh-Kil; Woo,
 Han Young; Lopez Navarrete, Juan T.
 CORPORATE SOURCE: Facultad de Ciencias, Departamento de Quimica
 Fisica, Universidad de Malaga, Malaga, 29071,
 Spain
 SOURCE: Journal of the American Chemical Society (2004), 126(41), 13363-13376
 CODEN: JACSAT; ISSN: 0002-7863
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:412439
 ED Entered STN: 27 Sep 2004

AB In this paper, we study three prepared sym. D- π -D chromophores containing dithieno[3,2-b:2',3'-d]thiophene (DTT) as the π -center and various donor end moieties, by means of UV-visible-NIR and FT-Raman spectroscopy and in-situ spectroelectrochem. The compds. display dual redox properties: all exhibited two oxidns. and single stable reduction peaks contrarily to the one or two oxidns. and no reduction which could be anticipated in view of their chemical structures. We analyze the possible electronic modulation by the π -conjugated DTT relay in the redox process and electronic coupling between the two electron donor (D) units attached through conjugation to opposite sides of the π -linker. To this end, the UV-visible-NIR and FT-Raman spectra of the neutral compds. and of the charged species generated upon in-situ p- or n-doping have been recorded and interpreted with the help of d. functional theory calcns. The anal. of the peculiar Raman features of these π -conjugated chromophores is guided by the formalism of the effective conjugation coordinate theory. This research shows that the Raman spectroscopic characterization of this type of D- π -D structures is a powerful tool to derive information about their π -conjugational properties in the pristine and doped states.

IT 183994-95-8
 (starting material; preparation and electronic modulation of
 dithienothiophene D- π -D chromophore optical and redox
 properties)

RN 183994-95-8 HCAPLUS

CN Phosphonium, [[4-(diphenylamino)phenyl]methyl]triphenyl-, bromide
(1:1) (CA INDEX NAME)

● Br-

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 22, 72, 73

IT 67061-73-8 177087-91-1 183994-95-8 263720-99-6

(starting material; preparation and electronic modulation of dithienothiophene D- π -D chromophore optical and redox properties)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:443329 HCAPLUS Full-text

DOCUMENT NUMBER: 139:245714

TITLE: Polyaromatic amines. Part 3: Synthesis of poly(diarylarnino)styrenes and related compounds

Plater, M. John; Jackson, Toby

CORPORATE SOURCE: Department of Chemistry, University of Aberdeen, Aberdeen, AB24 3UE, UK

SOURCE: Tetrahedron (2003), 59(25), 4673-4685

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:245714

ED Entered STN: 10 Jun 2003

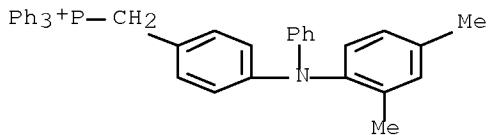
AB The title compds. were synthesized and characterized as part of a study into new aromatic amines for charge transporting materials. Alkene-linked triarylaminines, hydrazone derivs., and pyrrole-substituted triarylaminines were prepared. Each compound was characterized by cyclic voltammetry.

IT 596103-61-6P

(preparation and cyclic voltammetry of poly(diarylarnino)styrenes and related compds.)

RN 596103-61-6 HCAPLUS

CN Phosphonium, [[4-[2,4-dimethylphenyl]phenylamino]phenyl]methyl]triphenyl-, bromide (1:1)
(CA INDEX NAME)



● Br⁻

CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 76
 IT 2873-76-9P 4546-04-7P 6566-57-0P 17919-34-5P 18226-42-1P
 20248-86-6P, 4,4'-Bis(bromomethyl)biphenyl 27329-60-8P 30186-39-1P
 42906-19-4P 56875-38-8P 92636-36-7P 94788-29-1P 596103-60-5P
 596103-61-6P 596103-66-1P
 (preparation and cyclic voltammetry of poly(diarylarnino)styrenes and
 related compds.)
 OS.CITING REF COUNT: 44 THERE ARE 44 CAPLUS RECORDS THAT CITE THIS
 RECORD (45 CITINGS)
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L38 ANSWER 11 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2003:390863 HCPLUS Full-text
 DOCUMENT NUMBER: 138:386856
 TITLE: Two-photon absorption materials based on
 dithienothiophene
 INVENTOR(S): Kim, Oh-Kil; Woo, Han Young; Kim, Kie-Soo; Lee,
 Kwang-Sup
 PATENT ASSIGNEE(S): The United States of America as Represented by the
 Secretary of the Navy, USA
 SOURCE: U.S., 8 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6566529	B1	20030520	US 2000-574256	20000519
			<--	
PRIORITY APPLN. INFO.:			US 2000-574256	20000519
			<--	

OTHER SOURCE(S): MARPAT 138:386856

ED Entered STN: 22 May 2003

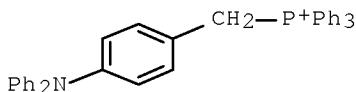
AB This invention pertains to two-photon-absorbing dithieno[3,2-b:2',3'-d]thiophene-based compds. containing electron donors and/or electron acceptors and having cross section value σ that is higher than the fluorene-based compound AF-50. Synthesis examples were given which started with dithieno[3,2-b:2',3'-d]thiophene-2,6- dicarboxaldehyde and various amines.

IT 183994-95-8

(starting material; production of two-photon absorption materials based on dithienothiophene)

RN 183994-95-8 HCPLUS

CN Phosphonium, [[4-(diphenylamino)phenyl]methyl]triphenyl-, bromide
(1:1) (CA INDEX NAME)



Br-

IC ICM C07D413-10
ICS C07D413-14
INCL 548145000; 548444000; 549031000
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitzers)
Section cross-reference(s): 27, 28
IT 67061-73-8, Dithieno[3,2-b:2',3'-d]thiophene-2,6-dicarboxaldehyde
183994-95-8 253878-39-6 263720-99-6 402962-03-2
(starting material; production of two-photon absorption materials based
on dithienothiophene)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
RECORD (2 CITINGS)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L38 ANSWER 12 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:90034 HCPLUS Full-text
DOCUMENT NUMBER: 136:136245
TITLE: Hyperpolarizable organic chromophores
INVENTOR(S): Dalton, Larry R.; Jen, Alex Kwan-Yue; Londergan,
Timothy; Carlson, William Brenden; Phelan,
Gregory; Huang, Diyun; Casmier, Daniel; Ewy, Todd;
Buker, Nicholas
PATENT ASSIGNEE(S): University of Washington, USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008215	A1	20020131	WO 2001-US23339	20010724

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	GE	GH	GM	HR	HU	ID	IL	IN	IS	JP	KE	KG	KP	KR	KZ
	LC	LK	LR	LS	LT	LU	LV	MA	MD	MG	MK	MN	MW	MX	MZ
	NO	NZ	PL	PT	RO	RU	SD	SE	SG	SI	SK	SL	TJ	TM	TR
	TT	TZ	UA	UG	US	UZ	VN	YU	ZA	ZW					
RW:	GH	GM	KE	LS	MW	MZ	SD	SL	SZ	TZ	UG	ZW	AT	BE	CH
	CY	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	MC	NL	PT	SE
	TR	BF	BJ	CF	CG	CI	CM	GA	GN	GQ	GW	ML	MR	NE	SN

TD, TG				
CA 2417000	A1	20020131	CA 2001-2417000 ----- US 2001-912444 -----	20010724
US 20020084446	A1	20020704	US 2001-912444 -----	20010724
US 7029606	B2	20060418		
EP 1305305	A1	20030502	EP 2001-957237 ----- R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR JP 2002-514121 -----	20010724
JP 2004508430	T	20040318	JP 2002-514121 ----- US 2005-77607 -----	20010724
US 20050179013	A1	20050818	US 2005-77607 -----	20050311
US 7507840	B2	20090324	US 2000-220321P ----- US 2001-912444 ----- WO 2001-US23339 -----	P 20000724
PRIORITY APPLN. INFO.:				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 136:136245

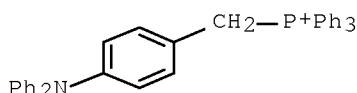
ED Entered STN: 01 Feb 2002

AB The present invention provides hyperpolarizable organic chromophores based on heterocyclic compds. The chromophores are nonlinear optically active compds. that include a π -donor conjugated to a π -acceptor through a π -electron conjugated bridge. Macromol. structures including the hyperpolarizable organic chromophores are also provided.

IT 183994-95-8P 392662-42-9P
(intermediate; production of donor-acceptor conjugated hyperpolarizable heterocyclic organic chromophores)

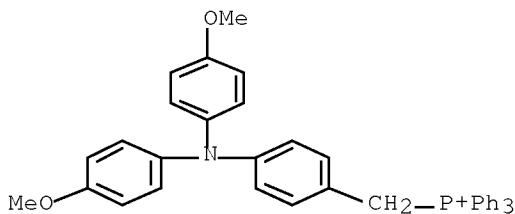
RN 183994-95-8 HCAPLUS

CN Phosphonium, [[4-(diphenylamino)phenyl]methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)

● Br⁻

RN 392662-42-9 HCAPLUS

CN Phosphonium, [[4-[bis(4-methoxyphenyl)amino]phenyl]methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)

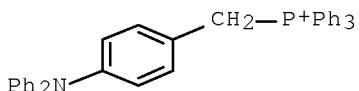


IC ICM C07D305-00
 ICS C07D307-00; C07D327-00; C07D409-00
 CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 25, 27, 28
 IT 111-25-1P, Hexyl bromide 4181-05-9P, 4-(Diphenylamino)benzaldehyde 10419-77-9P 20440-94-2P, N,N-Bis(4-methoxyphenyl)aniline 25069-40-3P 51751-44-1P, 3,3'-Dibromo-2,2'-bithiophene 81956-28-7P 81956-31-2P 89115-20-8P, 4-[Bis(4-methoxyphenyl)amino]benzaldehyde 125143-53-5P, 3,3',5,5'-Tetrabromo-2,2'-bithiophene 125607-30-9P, 3,3'-Dihexyl-2,2'-bithiophene 183394-95-8P 351444-78-5P 390417-74-0P 392662-42-9P 392662-43-0P 392662-46-3P 392662-47-4P 392662-48-5P 392662-49-6P 392662-50-9P 392662-51-0P 392662-52-1P 392662-57-6P 392662-58-7P 392662-61-2P 392662-62-3P 392662-64-5P 392662-66-7P (intermediate; production of donor-acceptor conjugated hyperpolarizable heterocyclic organic chromophores)
 OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 13 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2001:929709 HCPLUS [Full-text](#)
 DOCUMENT NUMBER: 136:238663
 TITLE: Two-photon and optical power limiting properties of fluorene and thiophene derivatives
 AUTHOR(S): Lee, Kwang-Sup; Lee, Jong-Hyoup; Kim, Kie-Soo; Woo, Han-Young; Kim, Oh-Kil; Choi, Haeyoung; Cha, Myoungsik; He, Guang S.; Swiatkiewcz, Jacek; Prasad, Paras N.; Chung, Myoung-Ae; Jung, Sang-Don
 CORPORATE SOURCE: Department of Polymer Science and Engineering, Hannam University, Taejon, 306-791, S. Korea
 SOURCE: MCLC S&T, Section B: Nonlinear Optics (2001), 27(1-4), 87-100
 CODEN: MCLOEB; ISSN: 1058-7268
 PUBLISHER: Gordon & Breach Science Publishers
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 26 Dec 2001
 AB The authors synthesized novel two-photon absorption (TPA) chromophores which contained fluorene (Flu) or dithienothiophene (DTT) moieties as π-center in which the π-center units are linked through π-conjugation to electron-donor (D) or electron-acceptor (A) groups at each end, forming sequenced structures

such as D- π -D or D- π -A. Here, for D unit carbazole or tri-Ph amine were employed and 2-phenyl-5-(4-tert-butyl)-1,3,4-oxadiazole was used as A unit. The TPA cross-section value (σ) for the chromophores were measured by nonlinear transmission using 8 ns laser pulse. The σ values attained by DTT-based chromophores were exceptionally large and increased with D strength and structural symmetry, D-DTT-D. Such a distinct mol. TPA activity is assumed mainly due to the unique electronic properties of DTT. Optical power limiting (OPL) behavior of the samples was studied by using an optical parametric oscillator with a beta-Ba borate crystal. The mol. D-DTT-D gave the best OPL performance among all mols. under study. The trend in OPL activity agrees well with the TPA values.

IT 183994-95-8
 (two-photon and optical power limiting properties of fluorene and thiophene derivs.)
 RN 183994-95-8 HCPLUS
 CN Phosphonium, [(4-(diphenylamino)phenyl)methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)



● Br-

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 22
 IT 102-82-9, Tributylamine 865-48-5 3375-31-3 6163-58-2,
 Tri-o-tolylphosphine 25069-74-3 67061-73-8 183994-95-8
 188200-93-3 253878-39-6 263720-99-6 402962-01-0 402962-03-2
 (two-photon and optical power limiting properties of fluorene and thiophene derivs.)
 OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)
 REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 14 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2001:527868 HCPLUS Full-text
 DOCUMENT NUMBER: 135:257293
 TITLE: Multidimensional Electron Transfer Pathways in a Tetrahedral Tetrakis{4-[N,N-di(4-methoxyphenyl)amino]phenyl}Phosphonium Salt: One-Step vs Two-Step Mechanism
 AUTHOR(S): Lambert, Christoph; Noell, Gilbert; Hampel, Frank
 CORPORATE SOURCE: Institut fuer Organische Chemie,
 Julius-Maximilians-Universitaet Wuerzburg,
 Wuerzburg, 97074, Germany
 SOURCE: Journal of Physical Chemistry A (2001),
 105(32), 7751-7758
 CODEN: JPCAFH; ISSN: 1089-5639
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Jul 2001

AB Different electron-transfer pathways have been investigated in a three-dimensional redox system:

tetrakis{4-[N,N-di(4-methoxyphenyl)amino]phenyl}phosphonium tetrafluoroborate 1+BF₄⁻ which comprises of four triarylamine redox centers arranged in a pseudo-tetrahedral geometry. Using a UV/Vis/NIR spectroelectrochem. setup we generated the mixed-valence species 12+, 13+, and 14+ and measured the UV/Vis/NIR spectra. These spectra were analyzed and interpreted according to a multi-dimensional Marcus-Hush approach. The anal. revealed that both the photoexcited as well as the thermal ET in 13+ are forbidden as a concerted two-electron transfer but allowed as two consecutive one-electron transfer steps. The crystal structure of 1+BF₄⁻ was determined

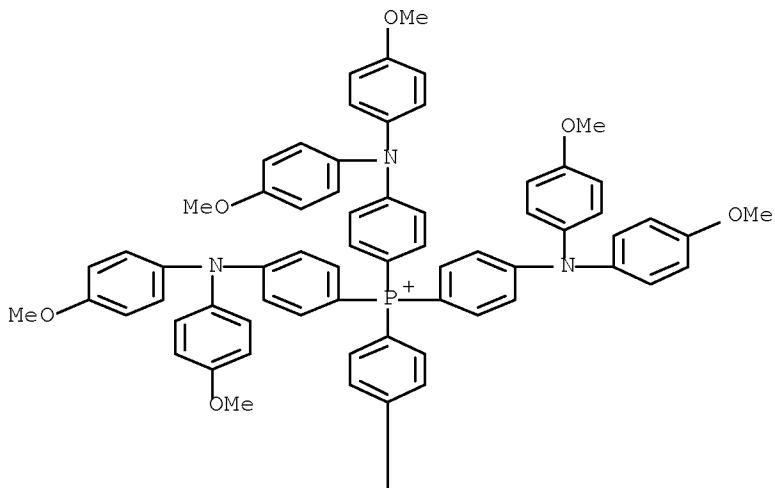
IT 361555-22-8P

(preparation and reaction with sodium tetrafluoroborate)

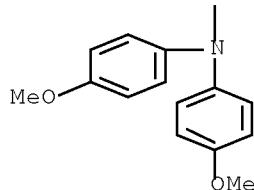
RN 361555-22-8 HCPLUS

CN Phosphonium, tetrakis[4-[bis(4-methoxyphenyl)amino]phenyl]-, iodide
(1:1) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

● I⁻

IT 361555-12-6P

(preparation, crystal structure, and multidimensional electron transfer mechanism of)

RN 361555-12-6 HCPLUS

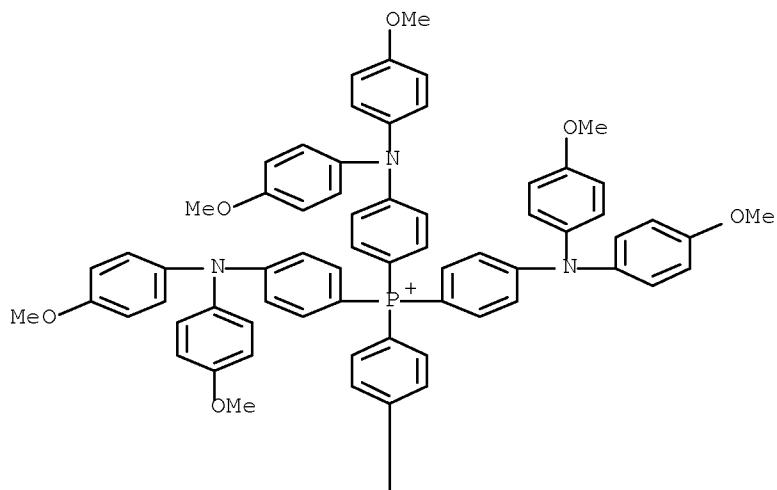
CN Phosphonium, tetrakis[4-[bis(4-methoxyphenyl)amino]phenyl]-, tetrafluoroborate(1-) (1:1) (CA INDEX NAME)

CM 1

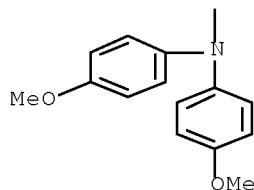
CRN 361555-11-5

CMF C80 H72 N4 O8 P

PAGE 1-A



PAGE 2-A

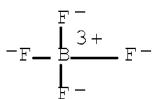


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22, 72, 75
IT 361555-22-8P
 (preparation and reaction with sodium tetrafluoroborate)
IT 361555-12-6P
 (preparation, crystal structure, and multidimensional electron transfer
 mechanism of)
OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS
 RECORD (29 CITINGS)
REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

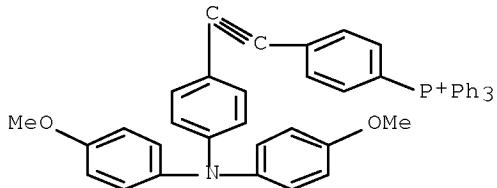
L38 ANSWER 15 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2001:400200 HCPLUS Full-text
DOCUMENT NUMBER: 135:226644
TITLE: Cationic π -electron systems with high quadratic hyperpolarizability
AUTHOR(S): Lambert, Christoph; Gaschler, Wolfgang; Noll, Gilbert; Weber, Matthias; Schmalzlin, Elmar; Brauchle, Christoph; Meerholz, Klaus
CORPORATE SOURCE: Institut fur Organische Chemie, Julius-Maximilians-Universitat Wurzburg, Wurzburg, D-97074, Germany
SOURCE: Journal of the Chemical Society, Perkin Transactions 2 (2001), (6), 964-974
CODEN: JCSPGI; ISSN: 1472-779X
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Jun 2001
AB Cationic NLO-chromophores based on tolane π -systems in which conventional electron donors are combined with ionic pyridinio or triorganoammonio and - phosphonio substituents, resp., perform much better than conventional donor/acceptor-substituted (D/A-substituted) tolanes concerning their hyperpolarizability-transparency trade-off. This effect occurs because ionic acceptors do not enlarge the π -system in contrast to conventional acceptors. The same holds true for benzene-type chromophores. Despite their different electronic nature, the extrapolated maximal high-energy absorption of the ionic chromophore series as well as of the conventional donor/acceptor-tolanes coincide at the absorption energy of unsubstituted tolane. This proves that the maximal blue transparency of a given series of substituted chromophores is governed by the absorption maximum of the unsubstituted parent chromophore. In this way chromophores have been designed with much higher quadratic hyperpolarizability than e.g. p-nitroaniline at about the same absorption wavelength. By applying the same concept, a two- and a three-dimensional highly efficient octupolar NLO-chromophore assembly has also been synthesized.
IT 359647-31-7P 359647-47-5P
(cationic π -electron systems with high quadratic hyperpolarizability)
RN 359647-31-7 HCPLUS

CN Phosphonium, [4-[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethynyl]phenyl]triphenyl-, tetrafluoroborate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 359647-30-6

CMF C46 H37 N O2 P

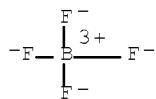


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



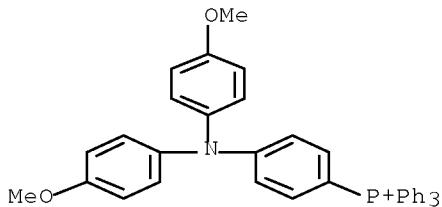
RN 359647-47-5 HCPLUS

CN Phosphonium, [4-[bis(4-methoxyphenyl)amino]phenyl]triphenyl-, tetrafluoroborate(1-) (1:1) (CA INDEX NAME)

CM 1

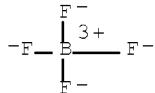
CRN 359647-46-4

CMF C38 H33 N O2 P



CM 2

CRN 14874-70-5
 CMF B F4
 CCI CCS



CC 22-9 (Physical Organic Chemistry)
 Section cross-reference(s): 29, 73
 IT 175859-96-8P 175859-99-1P 359647-28-2P 359647-31-7P
 359647-34-0P 359647-37-3P 359647-40-8P 359647-43-1P
 359647-47-5P
 (cationic π -electron systems with high quadratic
 hyperpolarizability)
 OS.CITING REF COUNT: 37 THERE ARE 37 CAPLUS RECORDS THAT CITE THIS
 RECORD (37 CITINGS)
 REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L38 ANSWER 16 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2000:521367 HCPLUS Full-text
 DOCUMENT NUMBER: 133:208256
 TITLE: Synthesis of poly(arylene ether)s containing
 hole-transport moieties from an isocyanate masked
 bisphenol
 AUTHOR(S): Lu, Jianping; Hlil, Antisar R.; Hay, Allan S.;
 Maindron, Tony; Dodelet, Jean-Pol; Lam, Jennifer;
 D'Iorio, Marie
 CORPORATE SOURCE: Department of Chemistry, McGill University,
 Montreal, QC, H3A 2K6, Can.
 SOURCE: Journal of Polymer Science, Part A: Polymer
 Chemistry (2000), 38(15), 2740-2748
 CODEN: JPACEC; ISSN: 0887-624X
 PUBLISHER: John Wiley & Sons, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 01 Aug 2000
 AB The design and synthesis of novel charge (hole- or electron-) transport
 materials have been the focus of much research in recent years because of
 their wide variety of applications. In this study, three high mol. weight
 poly(arylene ether)s, 6a-c, containing naphthyl-substituted benzidine moieties
 have been synthesized from carbamates derived from bisphenols. After masking
 with Pr isocyanate, the carbamate is stable, can be readily purified by
 recrystn. from toluene, and can be polymerized directly with difluoro compds.
 under mild conditions. The resulting polymers possess high glass-transition
 temps., excellent thermal stability, and good film-forming properties. In
 comparison, the poly(arylene ether)s 6a'-c', synthesized from unprotected
 bisphenol, have lower mol. wts. and wider polydispersity and contain some
 brown impurities. Preliminary expts. show that both 6a and 6a' can function
 well as hole-transport materials in light-emitting diodes.

IT 290815-97-3P 290816-05-6P

(synthesis of poly(arylene ether)s containing hole-transport moieties from an isocyanate masked bisphenol)

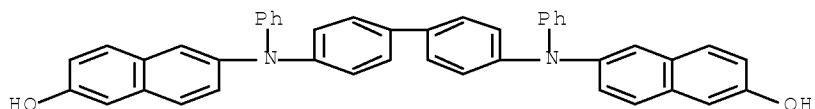
RN 290815-97-3 HCPLUS

CN 2-Naphthalenol, 6,6'-[1,1'-biphenyl]-4,4'-diylbis(phenylimino)bis-, polymer with bis(4-fluorophenyl)phenylphosphine oxide (9CI) (CA INDEX NAME)

CM 1

CRN 290815-93-9

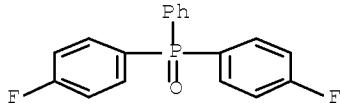
CMF C44 H32 N2 O2



CM 2

CRN 54300-32-2

CMF C18 H13 F2 O P



RN 290816-05-6 HCPLUS

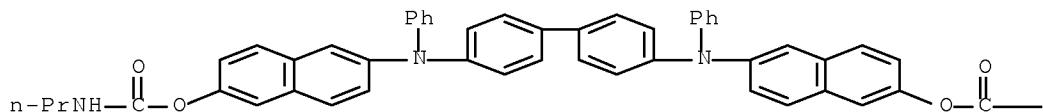
CN Carbamic acid, propyl-, [1,1'-biphenyl]-4,4'-diylbis[(phenylimino)-6,2-naphthalenediyl] ester, polymer with bis(4-fluorophenyl)phenylphosphine oxide (9CI) (CA INDEX NAME)

CM 1

CRN 290815-94-0

CMF C52 H46 N4 O4

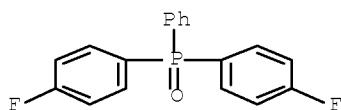
PAGE 1-A



—NHPr-n

CM 2

CRN 54300-32-2
 CMF C18 H13 F2 O P



CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 36, 73, 76
 IT 290815-95-1P 290815-96-2P 290815-97-3P 290815-98-4P
 290815-99-5P 290816-01-2P 290816-03-4P 290816-05-6P
 290816-07-8P
 (synthesis of poly(arylene ether)s containing hole-transport moieties
 from an isocyanate masked bisphenol)
 OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS
 RECORD (10 CITINGS)
 REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L38 ANSWER 17 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2000:208426 HCPLUS [Full-text](#)
 DOCUMENT NUMBER: 132:285675
 TITLE: Electronic/photonic property modulations of
 D-π-D(A) chromophores by DTT as π-center
 AUTHOR(S): Kim, O.-K.; Woo, H. Y.; Heuer, W. B.; Kim, K.-S.;
 Lee, K.-S.
 CORPORATE SOURCE: Chemistry Division, Naval Research laboratory,
 Washington, DC, 20375-5342, USA
 SOURCE: Polymer Preprints (American Chemical Society,
 Division of Polymer Chemistry) (2000),
 41(1), 795-796
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer
 Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 31 Mar 2000
 AB A synthesis and characterization of multifunctional chromophores (of D-π-D and
 D-π-A structures) and their electronic and optical properties that are
 modulated by the π center are studied. Also electrochem. data (reduction and
 oxidation potentials) are assessed by cyclic voltammetry. The two-photon

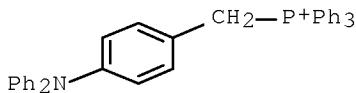
absorption and cross-section data and their dependence on the benzenoid π -center are discussed.

IT 183994-95-8

(electronic/photonic property modulations of D- π -D(A)
chromophores by DTT as π -center prepared using)

RN 183994-95-8 HCPLUS

CN Phosphonium, [{4-(diphenylamino)phenyl}methyl]triphenyl-, bromide
(1:1) (CA INDEX NAME)



● Br-

CC 73-4 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 22, 28, 72

IT 67061-73-8 183994-95-8 253878-39-6 263720-99-6

(electronic/photonic property modulations of D- π -D(A)
chromophores by DTT as π -center prepared using)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 18 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1996:739974 HCPLUS Full-text

DOCUMENT NUMBER: 126:39448

ORIGINAL REFERENCE NO.: 126:7713a,7716a

TITLE: Organic electroluminescent device with styrylamine derivatives

INVENTOR(S): Azuma, Hisahiro; Hosokawa, Chishio; Hironaka, Yoshio

PATENT ASSIGNEE(S): Idemitsu Kosan Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

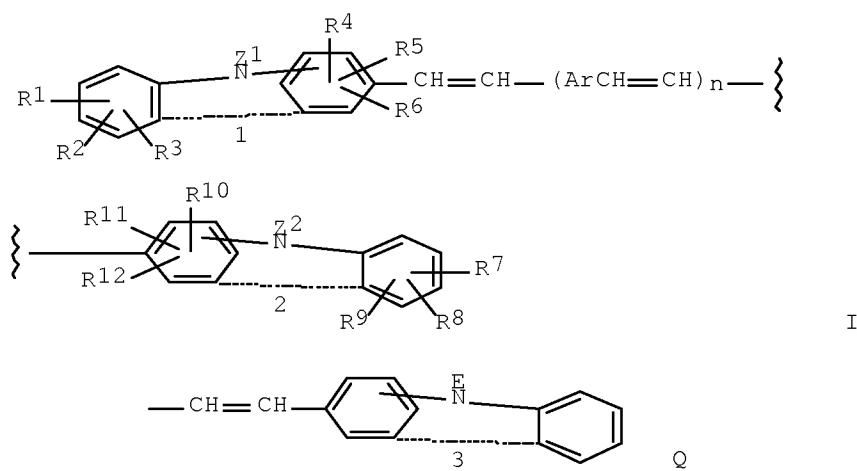
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08239655	A	19960917	JP 1995-45504 <--	19950306
JP 3724833	B2	20051207		
PRIORITY APPLN. INFO.:			JP 1995-45504 <--	19950306

OTHER SOURCE(S): MARPAT 126:39448

ED Entered STN: 16 Dec 1996

GI



AB The device contains ≥ 2 electron-donating styryl compds. in an organic functional layer containing an emitting layer retained by a pair of electrodes, wherein the electron-donating styryl compound contains ≥ 1 vinylene(s) in which both terminals are connected to (hetero) aromatic cycles. The styryl compds. may be styrylamines I [R1-12 = H, halo, C1-10 alkyl, C1-10 alkoxy, C6-18 aryloxy, Ph, (substituted) NH₂, OH, Q; Z1, Z2, E = H, C1-10 alkyl, (substituted) C6-20 aryl, (substituted) C7-20 aralkyl, (substituted) C6-20 arylene, C4-20 divalent aromatic heterocycle, divalent (substituted) triarylamino, where the substituent is C1-10 alkyl, C1-10 alkoxy, C6-18 aryloxy, Ph, NH₂, CN, NO₂, OH, halo; the broken lines 1-3 indicate heterocyclic structures; n = 0, 1, 2]. The device emits blue light with high emitting effectivity and good color purity.

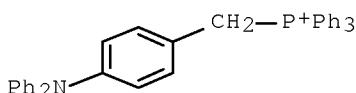
IT 183994-95-8P

(in preparation of styrylamine derivative for organic electroluminescent device

with high luminance)

RN 183994-95-8 HCPLUS

CN Phosphonium, [(4-(diphenylamino)phenyl)methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)



IC ICM C09K011-06
ICS H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 25069-40-3P 183994-94-7P 183994-95-8P

(in preparation of styrylamine derivative for organic electroluminescent device

with high luminance)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L38 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1993:90868 HCAPLUS Full-text

DOCUMENT NUMBER: 118:90868

ORIGINAL REFERENCE NO.: 118:15755a,15758a

TITLE: Preparation of bis[bis(diphenylamino)phenyl] compounds and electrophotographic photoreceptors using them

INVENTOR(S): Iwasaki, Hiroaki

PATENT ASSIGNEE(S): Mita Industrial Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

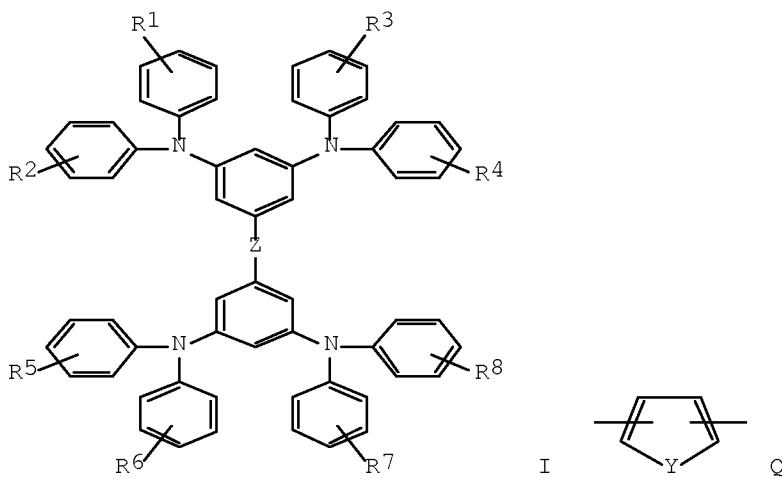
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 04279672	A	19921005	JP 1991-40269	19910306
			<--	
PRIORITY APPLN. INFO.:			JP 1991-40269	19910306
			<--	

ED Entered STN: 02 Mar 1993

GI

AB The title compds. I [R1-8 = H, halo, alkyl, alkoxy; Z = S, O, Se, Te, alkylene, (CH:CH)_n, Q; Y = S, O; n = 1-2] and electrophotog. photoreceptors having a photosensitive layer containing I on an elec.-conducting support are

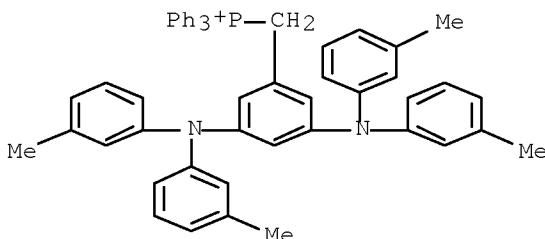
claimed. I are light-stable, and electrophotog. photoreceptors using I as charge-transporting agents are excellent in sensitivity and durability.

IT 145933-38-6

(reaction of, electrophotog. photoreceptor charge-transporting agents from)

RN 145933-38-6 HCAPLUS

CN Phosphonium, [[3,5-bis[bis(3-methylphenyl)amino]phenyl]methyl]triphenyl-, iodide (1:1) (CA INDEX NAME)



● I⁻

IC ICM C09B053-00

ICS C07D307-52; G03G005-06

ICA C07D333-12; C07D333-20

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 25

IT 145933-38-6

(reaction of, electrophotog. photoreceptor charge-transporting agents from)

L38 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1990:633311 HCAPLUS Full-text

DOCUMENT NUMBER: 113:233311

ORIGINAL REFERENCE NO.: 113:39359a,39362a

TITLE: Novel laser dyes: some bridged pentamethine phosphinines

AUTHOR(S): Luo, Weimei; Zhu, Zhenghua; Yao, Zhuguang; He, Mengzhen; Wang, Bingkui

CORPORATE SOURCE: East China Univ. Chem. Technol., Shanghai, 200237, Peop. Rep. China

SOURCE: Dyes and Pigments (1990), 14(3), 211-16
CODEN: DYPIDX; ISSN: 0143-7208

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Dec 1990

AB Six novel pentamethine phosphinines were prepared and their structures were determined by ¹H NMR. Their fluorescent properties and lasing characteristics were examined in DMSO with a nitrogen laser as the pumping source. Dyes with Ph₂N or PhMeN groups on the meso position of the bridge of the polymethine chain showed larger Stokes shift and higher lasing efficiency. The tunable range was 7600-8300 Å and the energy conversion efficiency was 2.4-5.3% at the maximum emission wavelength.

IT 130734-05-3P

(preparation of, as laser dyes)

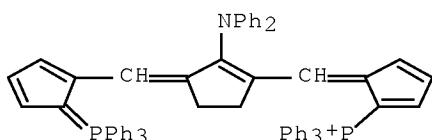
RN 130734-05-3 HCPLUS

CN Phosphonium, [5-[2-(diphenylamino)-3-[[5-(triphenylphosphoranylidene)-1,3-cyclopentadien-1-yl]methylene]-1-cyclopenten-1-yl]methylene]-1,3-cyclopentadien-1-yl]triphenyl-, perchlorate (1:1) (CA INDEX NAME)

CM 1

CRN 130734-04-2

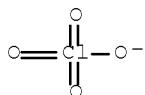
CMF C65 H52 N P2



CM 2

CRN 14797-73-0

CMF Cl O4



CC 41-6 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

IT 1439-45-8P 130734-05-3P 130734-09-7P 130734-11-1P
130734-13-3P 130734-15-5P

(preparation of, as laser dyes)

L38 ANSWER 21 OF 21 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1984:121192 HCPLUS Full-text

DOCUMENT NUMBER: 100:121192

ORIGINAL REFERENCE NO.: 100:18449a,18452a

TITLE: Oxocarbons and related compounds. 4.

Cyclobutenediones with triorganylphosphonium substituents: new squaric acid derivatives and representatives of push-pull substituted pseudo-oxocarbons

AUTHOR(S): Schmidt, Arthur H.; Aimene, Amokrane

CORPORATE SOURCE: Abt. Org. Chem. Biochem., Fachhochsch. Fresenius, Wiesbaden, D-6200, Fed. Rep. Ger.

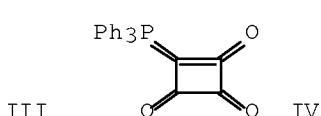
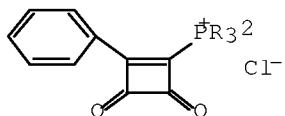
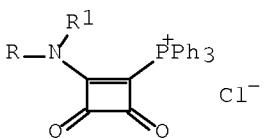
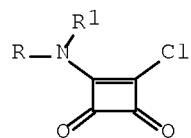
SOURCE: Chemiker-Zeitung (1983), 107(10), 299-304

CODEN: CMKZAT; ISSN: 0009-2894

DOCUMENT TYPE: Journal

LANGUAGE: German

ED Entered STN: 12 May 1984
 GI



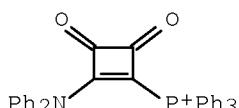
AB Reaction of the squaric acid amides I with ($RNR^1 =$ pyrrolidino, Ph_2N , morphine, etc.) gave phosphonium salts II in moderate-to-good yields. (2-
 Phenyl-3,4-dioxocyclobutenyl)triarylphosphonium chlorides III [$R^2 =$
 (un)substituted Ph] were obtained similarly from phenylchlorocyclobutenediones
 and triarylphosphines. The phosphonium betaine IV is generated in a 3-
 component reaction from perchlorocyclobuteneone, Ph_3P and H_2O .

IT 89029-38-9P

(preparation of)

RN 89029-38-9 HCPLUS

CN Phosphonium, [2-(diphenylamino)-3,4-dioxo-1-cyclobuten-1-yl]triphenyl-
 , chloride (1:1) (CA INDEX NAME)



● Cl-

CC 29-7 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 24

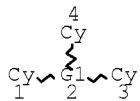
IT 62085-99-8P 89029-34-5P 89029-35-6P 89029-36-7P 89029-37-8P

89029-38-9P 89029-39-0P 89029-40-3P 89029-41-4P

89029-42-5P 89029-43-6P 89029-44-7P 89029-45-8P

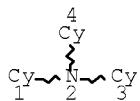
(preparation of)

=> d que 139
 L3 STR

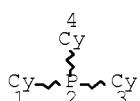


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 DEFAULT ECLEVEL IS LIMITED
 GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
 L4 SCR 1609 OR 1741
 L5 SCR 2077
 L6 SCR 2127
 L7 SCR 1918
 L8 29859 SEA FILE=REGISTRY SSS FUL L3 AND L4 AND L6 NOT (L5 OR L7)
 L9 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 4
 STEREO ATTRIBUTES: NONE
 L10 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

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L16	115 SEA FILE=REGISTRY SPE=ON	ABB=ON	PLU=ON	603-34-9/CRN
L18	25 SEA FILE=REGISTRY SUB=L8	SSS FUL L9 AND L10		
L19	40 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L18
L20	938 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L14
L21	24013 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L13
L22	2344 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L15
L23	204 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L16
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L35	20 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L34 AND (1840-2006) /PRY,AY,PY
L36	21 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L19 AND (1840-2006) /PRY,AY,PY
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L39	18 SEA FILE=HCAPLUS SPE=ON	ABB=ON	PLU=ON	L35 NOT L38

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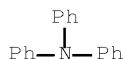
L39 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN	
ACCESSION NUMBER:	2006:257140 HCAPLUS <u>Full-text</u>
DOCUMENT NUMBER:	146:45106
TITLE:	Synthesis, characterization and properties of a PPV conjugated polymer containing triphenylamine segment
AUTHOR(S):	Zou, Yingping; Tan, Songting; Xiao, Lei; Yi, Jie; Yu, Zongqiang
CORPORATE SOURCE:	Institute of Polymer Materials, Xiangtan University, Xiangtan, 411105, Peop. Rep. China
SOURCE:	Gaofenzi Xuebao (2006), (1), 129-135 CODEN: GAXUE9; ISSN: 1000-3304
PUBLISHER:	Kexue Chubanshe
DOCUMENT TYPE:	Journal
LANGUAGE:	Chinese
OTHER SOURCE(S):	CASREACT 146:45106

ED Entered STN: 20 Mar 2006
 AB Diformaltriphenylamine and 1-methoxy-4-octoxyl-2,5-xylenebis(tri-phenylphosphonium chloride) were synthesized, and their copolymer (TPA-MOPPV) was obtained through a Wittig polycondensation. The structures of the monomer and copolymer were characterized by FTIR, UV-visible, 1H-NMR and fluorescence spectrum. The optical properties and thermal behavior were discussed. A strong blue-greenish light, with 503 nm maximum wavelength, was observed for the copolymer in 0.01 g/L CHCl₃ solution. Also, concns. on photoluminescence property of the polymer was studied. The maximum excitation wavelength was .apprx.440 nm when the concentration of the copolymer was under 0.01 g/L, but the maximum excitation wavelength exceeded 492 nm after the concentration was >0.01 g/L. The copolymer is readily soluble in common organic solvents at room temperature, so it could be easy to prepare electroluminescent device by spin-coat technol. The electrochem. studies suggested the hole injection and hole transport properties could be improved because of introducing the triphenylamine units. Its electroluminescence properties were studied, a polymer light emitting diode with the TPA-MOPPV as the active layer (ITO/PEDOT: PSS/TPA-MOPPV/Ba/Al) showed greenish yellow emission with luminance over 369 cd/m² at 6 V and the low turn-on voltage (3.2 V), the maximum external quantum efficiency was 0.14%. DSC anal. showed that Tg of the polymer was 23 K higher than that of triphenylamine derivs. TPD, and the results of TG indicated that the decomposition temperature of TPA-MOPPV was 208 °C and the polymer did not displays apparent weight loss until 360 °C. In a word, the polymer exhibits strong fluorescence, relatively high thermal stability, good film-forming capability, high luminance, good hole-transporting property, being a good candidate of electroluminescent material.

IT 603-34-9, Triphenylamine
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)

RN 603-34-9 HCPLUS

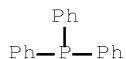
CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



IT 603-35-0P, Triphenylphosphine, reactions
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)

RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



CC 22-9 (Physical Organic Chemistry)
 Section cross-reference(s): 36, 73

ST prepn PPV conjugated polymer triphenylamine segment

IT IR spectra
 (FTIR; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)

IT Polymers, properties
 (co-; preparation, characterization, and properties of PPV conjugated

polymer containing triphenylamine segment)
 IT Polymerization
 (condensation, Wittig reaction; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT Polymers, properties
 (conjugated; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT Luminescent substances
 (electroluminescent; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT Hole (electron)
 (injection; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT Wittig reaction
 (polymerization by; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT Differential scanning calorimetry
 Electroluminescence
 Electroluminescent devices
 Emissivity
 Fluorescence
 Glass transition temperature
 Hole transport
 NMR (nuclear magnetic resonance)
 Optical properties
 Physical and chemical properties
 UV and visible spectra
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT 9003-53-6D, sulfonated
 (PSS; preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT 864461-99-4P 864517-70-4P
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT 50-00-0, Formaldehyde, reactions 111-83-1, Octyl bromide 150-76-5,
 p-Methoxyphenol 603-34-9, Triphenylamine 30525-89-4,
 Paraformaldehyde 53566-95-3
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT 603-35-0P, Triphenylphosphine, reactions 110126-95-9P
 196877-73-3P 252338-07-1P
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT 7647-01-0, Hydrogen chloride, reactions
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)
 IT 7429-90-5, Aluminum, uses 7440-39-3, Barium, uses 50926-11-9, ITO
 126213-51-2, PEDOT
 (preparation, characterization, and properties of PPV conjugated polymer containing triphenylamine segment)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L39 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:1155453 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:431034
 TITLE: Materials suitable for shallow trench isolation

INVENTOR(S): Jin, Lei; Lu, Victor; Naman, Ananth
 PATENT ASSIGNEE(S): Honeywell International Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 8 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050239264	A1	20051027	US 2004-829048 -----<--	20040421
WO 2005114707	A2	20051201	WO 2005-US13497 -----<--	20050420
WO 2005114707	A3	20060126		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
 MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
 SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
 US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC,
 NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-829048 A 20040421
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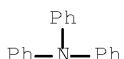
ED Entered STN: 28 Oct 2005

AB The invention relates to semiconductor device fabrication and more specifically to a method and material for forming of shallow trench isolation structures in integrated circuits. A silica dielec. film is formed by preparing a composition comprising a silicon containing pre-polymer, optionally water, and optionally a metal-ion-free catalyst selected from the group consisting of onium compds. and nucleophiles. The substrate is then coated with the composition to form a film. The film is then crosslinked to produce a gelled film. The gelled film is then heated at a temperature of from .apprx.750°. to .apprx.1000°. for a duration effective to remove substantially all organic moieties and to produce a substantially crack-free silica dielec. film.

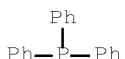
IT 603-34-9, Triphenylamine 603-35-0,
 Triphenylphosphine, uses
 (dielec. film for shallow trench isolation in semiconductor device
 fabrication for integrated circuits)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)

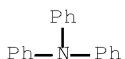


RN 603-35-0 HCPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)



IC ICM H01L021-76
 INCL 438424000
 CC 76-3 (Electric Phenomena)
 IT 67-71-0, Dimethyl sulfone 68-12-2, Dimethylformamide, uses
 75-59-2, Tetramethylammonium hydroxide 102-71-6, Triethanolamine,
 uses 102-87-4, Tridodecylamine 338-39-6,
 Tetrakis(2,2,2-trifluoroethoxy)silane 429-72-1 594-09-2,
 Trimethylphosphine 603-34-9, Triphenylamine
 603-35-0, Triphenylphosphine, uses 682-38-2 1116-76-3,
 Trioctylamine 1608-26-0, Hexamethylphosphorous triamide 2377-86-8
 3410-77-3, Tetraisocyanatosilane 4731-53-7, Trioctylphosphine
 10534-59-5, Tetrabutylammonium acetate 10581-12-1,
 Tetramethylammonium acetate 14814-27-8, Tetramethylphosphonium
 hydroxide 52987-83-4, Tetramethylphosphonium acetate
 (dielec. film for shallow trench isolation in semiconductor device
 fabrication for integrated circuits)
 OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS
 RECORD (15 CITINGS)

L39 ANSWER 3 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:248853 HCPLUS Full-text
 DOCUMENT NUMBER: 143:115843
 TITLE: Synthesis and optical characteristics of PPV-based
 copolymers
 AUTHOR(S): Lee, Hyun Ho; Kim, Eun Ok; Won, Jang Hoon; Kim,
 Young Ho
 CORPORATE SOURCE: Department of Chemistry, The University of Suwon,
 Kyunggi, 445-742, S. Korea
 SOURCE: Journal of the Korean Chemical Society (2005), 49(1), 72-77
 CODEN: JKCSZE; ISSN: 1017-2548
 PUBLISHER: Korean Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: Korean
 ED Entered STN: 23 Mar 2005
 AB The PPV related copolymers, TPA-PPV, TPA-POPV, TPA-ROPPV, and TPA-PBPV were
 synthesized by the Wittig polycondensation reaction to tune the emission
 wavelength from green to blue region. They showed UV-Vis. absorbance and PL
 in the ranges of 378-440 nm and 447-503 nm, resp. The band gap energy of these
 copolymers were in the ranges of 2.53-2.81 eV.
 IT 603-34-9, Triphenylamine 603-35-0,
 Triphenylphosphine, reactions
 (reactant in monomer preparation; synthesis and optical characteristics
 of PPV-based copolymers)
 RN 603-34-9 HCPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)

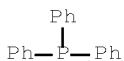


RN 603-35-0 HCAPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)

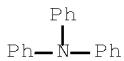


CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 36, 74
 IT Band gap
 Conducting polymers
 Electroluminescent devices
 Luminescence
 Thermal decomposition
 (synthesis and optical characteristics of PPV-based copolymers)
 IT 50-00-0, Formaldehyde, reactions 68-12-2, DMF, reactions 111-25-1,
 1-Bromohexane 123-31-9, Hydroquinone, reactions 603-34-9
 , Triphenylamine 603-35-0, Triphenylphosphine, reactions
 1667-10-3, 4,4'-Bis(chloromethyl)-1,1'-biphenyl 10035-10-6,
 Hydrobromic acid, reactions
 (reactant in monomer preparation; synthesis and optical characteristics
 of PPV-based copolymers)

L39 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2004:181344 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:375611
 TITLE: Synthesis and photophysical properties of a novel
 semiconducting polymer
 AUTHOR(S): Huang, Hongmin; He, Qingguo; Lin, Hongzhen; Bai,
 Fenglian; Sun, Zhi; Li, Qingshan
 CORPORATE SOURCE: Laboratory of Organic Solids, Center for Molecular
 Science, Institute of Chemistry, The Chinese
 Academy of Sciences, Beijing, 100080, Peop. Rep.
 China
 SOURCE: Polymers for Advanced Technologies (2004
), 15(1-2), 84-88
 CODEN: PADTE5; ISSN: 1042-7147
 PUBLISHER: John Wiley & Sons Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 05 Mar 2004
 AB An alternating copolymer containing triphenylamine (TPA) and cyano-substituted
 benzene moieties, TPA-CNPPV was synthesized using the Wittig reaction. The
 monomers and polymer were characterized by H-NMR, FT-IR and mass spectroscopy
 (MS). The polymer shows good solubility in common organic solvents and
 excellent film-forming ability. Thermogravimetric anal. (TGA) demonstrates
 that the polymer has a degradation temperature (TD) of 600 °C; differential
 scanning calorimetry (DSC) result indicates that the glass transition
 temperature (Tg) of TPA-CNPPV is 160 °C, suggesting high thermal stability.
 The photophys. properties of the light-emitting material were investigated in
 both solution and spin-coated film. Photo-isomerization of the polymer was
 investigated by UV-vis and fluorescence spectra. The interaction between TPA-
 CNPPV and C60 was studied by fluorescence quenching.
 IT 603-35-0, Triphenylphosphine, reactions
 (in reaction with bis(bromomethyl)dicyanobenzene)
 RN 603-35-0 HCAPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)



IT 603-34-9, Triphenylamine
 (reaction with DMF and phosphorus oxychloride in preparation of monomer)
 RN 603-34-9 HCPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 36
 IT UV absorption
 (UV-visible; synthesis and photophys. properties of novel semiconducting polymer)
 IT Isomerization
 (cis-trans, photochem.; synthesis and photophys. properties of novel semiconducting polymer)
 IT Fluorescence quenching
 (of novel semiconducting polymer with fullerene)
 IT Solvent effect
 (on photophys. properties of novel semiconducting polymer)
 IT Polyamines
 (polyphenylenevinylene-; synthesis and photophys. properties of novel semiconducting polymer)
 IT Poly(arylenealkenylenes)
 (polyphenylenevinylenes, polyamine-; synthesis and photophys. properties of novel semiconducting polymer)
 IT Fluorescence
 Glass transition temperature
 Luminescence
 Thermal stability
 (synthesis and photophys. properties of novel semiconducting polymer)
 IT 99685-96-8, Fullerene 131159-39-2, Fullerene
 (effect on photophys. properties of novel semiconducting polymer)
 IT 603-35-0, Triphenylphosphine, reactions
 (in reaction with bis(bromomethyl)dicyanobenzene)
 IT 53566-95-3P 232948-23-1P
 (monomer; preparation of, and in synthesis of novel semiconducting polymer)
 IT 603-34-9, Triphenylamine
 (reaction with DMF and phosphorus oxychloride in preparation of monomer)
 IT 71-43-2, Benzene, uses 593-45-3, Octadecane
 (solvent effect on photophys. properties of novel semiconducting polymer)
 IT 683218-09-9P 683218-10-2P
 (synthesis and photophys. properties of novel semiconducting

polymer)
OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS
RECORD (5 CITINGS)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L39 ANSWER 5 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:757368 HCPLUS Full-text
DOCUMENT NUMBER: 139:261652
TITLE: Polymerized cycloolefins using
transition metal catalyst and end product optical
articles for electronic devices
INVENTOR(S): Rhodes, Larry Funderburk; Bell, Andrew; Ravikiran,
R.; Fontran, John C.; Jayaraman, Saikumar;
Goodall, Brian Leslie; Mimna, Richard A.; Lipian,
John-Henry
PATENT ASSIGNEE(S): Promerus, LLC, USA
SOURCE: U.S. Pat. Appl. Publ., 90 pp., Cont.-in-part of
U.S. Ser. No. 196,525.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030181607	A1	20030925	US 2002-271393 ---<--	20021015
US 6903171	B2	20050607		
US 20020052454	A1	20020502	US 1999-412935 ---<--	19991005
US 6455650	B2	20020924		
CN 1847270	A	20061018	CN 2005-10104100 ---<--	19991005
US 20030023013	A1	20030130	US 2002-196525 ---<--	20020716
US 6825307	B2	20041130		
US 20040048994	A1	20040311	US 2003-464978 ---<--	20030618
WO 2004035636	A2	20040429	WO 2003-US32474 ---<--	20031014
WO 2004035636	A3	20050113		
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AU 2003287068	A1	20040504	AU 2003-287068 ---<--	20031014
PRIORITY APPLN. INFO.:			US 1998-103120P ---<--	P 19981005
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US 2002-196525	A2	20020716
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US 1998-111590P	P	19981209
<--		
CN 1999-802712	A3	19991005
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US 2002-271393	A1	20021015
<--		
WO 2003-US32474	W	20031014
<--		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 139:261652

ED Entered STN: 26 Sep 2003

AB The addition polymerization of cycloolefins uses a cationic Group 10 metal complex and a weakly coordinating anion (WCA), $[(R')zM(L')x(L'')y]b[WCA]d$, where $[(R')zM(L')x(L'')y]$ is a cation complex where M is a Group 10 transition metal; R' is anionic hydrocarbyl containing ligand; L' is Group 15 neutral electron donor ligand; L'' is a labile neutral electron donor ligand; x = 1 or 2; y = 0, 1, 2, or 3; z = 0 or 1, where the sum of x, y, and z = 4; [WCA] is counter anion complex; and b and d are nos. representing the number of times the cation complex and weakly coordinating counter anion complex are taken to balance the electronic charge on the overall catalyst complex.

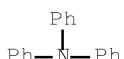
IT 603-34-9, Triphenylamine 603-35-0,

Triphenylphosphine, uses

(catalyst ligand; transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



IC ICM C08F004-44

INCL 526134000; 526308000; 526171000; 526172000

CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67, 76

ST optical semiconductor device cycloolefin polymer; transition metal complex catalyst cycloolefin polymer; allylpalladium cyclohexylphosphine fluorophenylborate catalyst butylnorbornene ethoxysilylnorbornene polymer

IT Polysiloxanes, preparation
(block polycycloalkene-; transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Amines, uses
 (complexes; transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Electroluminescent devices
 Electronic packaging materials
 Optoelectronic semiconductor devices
 (cycloolefin polymers for packaging of electronic devices)

IT Polysiloxanes, preparation
 (di-Me, Me vinyl, vinyl group-terminated, Gelest VMM 010, reaction products with hexynorbornene and triethoxysilylnorbornene; transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Polysiloxanes, preparation
 (di-Me, di-Ph, vinyl group-terminated, Gelest PDV 1625, reaction products with hexynorbornene and triethoxysilylnorbornene; transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Cycloalkenes
 (polymers; transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Polymerization catalysts
 (transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Platinum-group metal complexes
 (transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT Fluoropolymers, preparation
 (transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT 116-17-6, Triisopropyl phosphite 432-04-2,
 Tris(trifluoromethyl)phosphine 554-70-1, Triethylphosphine 585-48-8, 2,6-Di-tert-butylpyridine 594-09-2, Trimethylphosphine 603-34-9, Triphenylamine 603-35-0,
 Triphenylphosphine, uses 603-36-1, Triphenylstibine 607-01-2, Ethyldiphenylphosphine 672-66-2, Dimethylphenylphosphine 819-19-2, Di-tert-butylphosphine 829-84-5, Dicyclohexylphosphine 855-38-9, Tris(p-methoxyphenyl)phosphine 998-40-3, Tributylphosphine 1017-60-3, Bis[4-methylphenyl]phosphine 1038-95-5, Tri-p-tolylphosphine 1101-41-3, Tetraphenylbiphosphine 1159-54-2, Tris(4-chlorophenyl)phosphine 1259-35-4, Tris(pentafluorophenyl)phosphine 1485-88-7, (2-Methoxyphenyl)methylphenylphosphine 1605-53-4, Diethylphenylphosphine 1663-45-2, 1,2-Bis(diphenylphosphino)ethane 1732-72-5, Dibutylphosphine 1795-31-9, Tris(trimethylsilyl)phosphite 2155-96-6, Diphenylvinylphosphine 2234-97-1, Tripropylphosphine 2622-14-2, Tricyclohexylphosphine 2741-38-0, Allyldiphenylphosphine 2752-19-4, Tri-o-xenyl phosphite 4006-38-6, Diisobutylphosphine 4125-25-1, Triisobutylphosphine 4731-53-7, Tri-n-octylphosphine 4731-65-1, Tris(2-methoxyphenyl)phosphine 5074-71-5, Bis(pentafluorophenyl)phenylphosphine 5518-52-5, Tris(2-furylphosphine 5525-95-1, Diphenyl(pentafluorophenyl)phosphine 6002-34-2, tert-Butyldiphenylphosphine 6163-58-2, Tri-o-tolylphosphine 6224-63-1, Tri-m-tolylphosphine 6372-40-3, Diphenylisopropylphosphine 6372-42-5, Cyclohexyldiphenylphosphine 6372-44-7, Dibutylphenylphosphine 6476-36-4, Triisopropylphosphine 6476-37-5, Dicyclohexylphenylphosphine 7650-88-6,

Tricyclopentylphosphine 7650-89-7, Tribenzylphosphine 7650-91-1,
 Benzyldiphenylphosphine 13406-29-6,
 Tris(p-trifluoromethylphenyl)phosphine 13716-12-6,
 Tri-tert-butylphosphine 14180-51-9,
 Bis(4-methoxyphenyl)phenylphosphine 15383-58-1,
 1,2-Bis(diphenylphosphino)propane 15573-38-3,
 Tris(trimethylsilyl)phosphine 16523-89-0, Triallylphosphine
 17261-28-8, 2-(Diphenylphosphino)benzoic acid 17586-49-1,
 Tri-sec-butylphosphine 18437-78-0, Tris(p-fluorophenyl)phosphine
 23743-26-2, 1,2-Bis(dicyclohexylphosphino)ethane 23897-15-6,
 Tris(2,4,6-trimethylphenyl)phosphine 24171-89-9,
 Tris(2-thienyl)phosphine 24850-33-7, Allyltributyltin 26464-99-3,
 Dimethyl(trimethylsilyl)phosphine 26681-88-9, Divinylphenylphosphine
 28609-58-7, Tris(phenylthio)stibine 28653-22-7, Trinaphthylphosphine
 29949-75-5, Diallylphenylphosphine 29949-84-6,
 Tris(m-methoxyphenyl)phosphine 29949-85-7,
 Tris(3-chlorophenyl)phosphine 31570-04-4,
 Tris(2,4-di-tert-butylphenyl) phosphite 42491-33-8,
 tert-Butylbis(trimethylsilyl)phosphine 43077-29-8,
 Diphenyl-(+)-neomenthylphosphine 53111-20-9,
 Diphenyl(2-methoxyphenyl)phosphine 56522-04-4, Dibenzylphosphine
 63995-70-0 76189-55-4 83622-85-9, Tris(3-methoxypropyl)phosphine
 85417-41-0, Tris(2,6-dimethoxyphenyl)phosphine 166172-69-6,
 Bis[3,5-bis(trifluoromethyl)phenyl]phosphine 175136-62-6,
 Tris[3,5-bis(trifluoromethyl)phenyl]phosphine 193404-80-7
 216020-59-6, Bis(2-furyl)phosphine 263878-91-7
 (catalyst ligand; transition metal complexes stabilized by weakly
 coordinating counterions for catalysts for polymerization of
 cycloolefins)
 IT 75-16-1, Methylmagnesium bromide 124-41-4, Sodium methoxide
 127-91-3, β -Pinene 139362-04-2
 (catalyst precursor; transition metal complexes stabilized by
 weakly coordinating counterions for catalysts for polymerization
 of cycloolefins)
 IT 100-42-5D, Styrene, crosslinked polymer
 (catalyst support; transition metal complexes stabilized by weakly
 coordinating counterions for catalysts for polymerization of
 cycloolefins)
 IT 2102-16-1, Hexadeuterocyclopentadiene 25291-17-2,
 1H,1H,2H-Perfluoro-1-octene
 (monomer precursor; transition metal complexes stabilized by weakly
 coordinating counterions for catalysts for polymerization of
 cycloolefins)
 IT 263879-07-8P
 (monomer; transition metal complexes stabilized by weakly
 coordinating counterions for catalysts for polymerization of
 cycloolefins)
 IT 97-93-8, Triethylaluminum, uses 1295-35-8, Bis(cyclooctadiene)nickel
 3375-31-3 12012-95-2, Allylpalladium chloride dimer 12107-56-1
 12145-60-7, (Methallyl)nickel choride dimer 13965-03-2 14024-61-4,
 Palladium acetylacetone 15242-92-9 18987-59-2 28425-04-9
 29934-17-6, Bis(tricyclohexylphosphine)palladium dichloride
 31989-57-8, Bis(triphenylphosphine)palladium 32216-28-7,
 Allylplatinum chloride tetramer 33309-88-5 34424-15-2 40691-33-6
 42196-31-6, Palladium trifluoroacetate 63936-77-6 63936-85-6,
 (1,5-Cyclooctadiene)methylpalladium chloride 125475-73-2
 135348-57-1, Ferrocenium tetrakis(pentafluorophenyl)borate
 141219-72-9, Palladium ethylhexanoate 172418-32-5 263878-78-0
 263879-42-1 263879-43-2 263879-44-3
 (transition metal complexes stabilized by weakly coordinating

counterions for catalysts for polymerization of cycloolefins)

IT 12013-04-6P, (Allyl)palladium iodide dimer 28016-71-9P 32699-43-7P
 34829-33-9P 58676-44-1P 71035-50-2P 79270-04-5P 119875-93-3P
 125893-61-0P 179803-34-0P 263878-70-2P 263878-71-3P
 263878-72-4P 263878-73-5P 263878-74-6P 263878-75-7P
 263878-76-8P 263878-77-9P 263878-79-1P 263878-80-4P
 263905-49-3P 263905-50-6P

(transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT 25038-76-0P, Polynorbornene 25038-78-2P, Polydicyclopentadiene
 26935-77-3P, Poly(5-butyl-2-norbornene) 26935-79-5P,
 Poly(5-hexylnorbornene) 26935-85-3P 29036-48-4P,
 Poly-5-ethyl-2-norbornene 118777-99-4P 146066-32-2P,
 Poly(5-triethoxysilyl-2-norbornene) 146066-36-6P 252338-36-6P
 252338-37-7P, Butylnorbornene-5-triethoxysilylnorbornene copolymer
 252338-38-8P 263878-83-7P 263878-84-8P 263878-85-9P
 263878-86-0P 263878-87-1P 263878-88-2P 263878-89-3P
 263878-90-6P 263878-92-8P 263878-94-0P 263878-96-2P
 263878-97-3P 263878-98-4P 263878-99-5P 263879-00-1P
 263879-01-2P 263879-02-3P 263879-03-4P 263879-04-5P
 263879-05-6P 263879-06-7P 263879-08-9P 263879-09-0P
 263879-10-3P 263879-11-4P 263879-12-5P 263880-86-0P
 263905-51-7P 263905-52-8P 264133-20-2P

(transition metal complexes stabilized by weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT 199450-09-4 220836-13-5 220836-14-6 220836-19-1 220836-26-0
 220836-29-3 220836-34-0 263880-01-9 263880-02-0 263880-03-1
 263880-04-2 263880-05-3 263880-07-5 263880-09-7 263880-10-0
 263880-12-2 263880-13-3 263880-14-4 263880-15-5 263880-16-6
 263880-18-8 263880-19-9 263880-22-4 263880-24-6 263880-25-7
 263880-28-0 263880-30-4 263880-34-8 263880-36-0 263880-38-2
 263880-40-6 263880-42-8 263880-43-9 263880-45-1 263880-46-2
 263880-47-3 263880-48-4 263880-49-5 263880-50-8 263880-52-0
 263880-53-1 263880-54-2 263880-55-3 263880-56-4 263880-57-5
 263880-58-6 263880-60-0 263880-61-1 263880-62-2 263880-63-3
 263880-65-5 263880-66-6 263880-67-7 263880-68-8 263880-70-2
 263880-71-3 263880-72-4 263880-73-5 263880-75-7 263880-76-8
 263880-77-9 263880-78-0 263880-80-4 263880-81-5 263880-82-6
 263880-83-7 263880-85-9 263880-87-1 263905-53-9 263905-54-0
 263905-55-1 263905-57-3

(weakly coordinating counterion component; transition metal complexes having weakly coordinating counterions for catalysts for polymerization of cycloolefins)

IT 143-66-8, Sodium tetraphenylborate 1109-15-5,
 Tris(pentafluorophenyl)boron 2797-28-6, Lithium
 tetrakis(pentafluorophenyl)borate 14104-20-2, Silver
 tetrafluoroborate 25776-12-9, Sodium tetrakis(4-fluorophenyl)borate
 26603-18-9, Sodium tetrakis(3-fluorophenyl)borate 55471-58-4
 68140-33-0, Lithium tetrakis(4-fluorophenyl)borate 70083-57-7
 79060-88-1, Sodium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate
 89171-23-3, Potassium tetrakis(pentafluorophenyl)borate 105560-52-9,
 Potassium tetrakis[bis(3,5-trifluoromethyl)phenyl]borate
 118612-00-3, N,N-Dimethylanilinium tetrakis(pentafluorophenyl)borate
 119861-51-7, Sodium tetrakis(3,5-difluorophenyl)borate 120945-63-3
 121919-80-0 136040-19-2, Trityl tetrakis(pentafluorophenyl)borate
 142617-68-3 143319-79-3 143607-32-3 144674-03-3 148354-26-1
 148354-27-2, Triethylsilylium tetrakis(pentafluorophenyl)borate
 149213-65-0, Sodium tetrakis(pentafluorophenyl)borate 153347-65-0,
 Lithium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate 156713-63-2
 157475-37-1 160298-75-9, Silver tetrakis(4-fluorophenyl)borate

160298-76-0 167172-26-1 167172-28-3 172883-38-4 177716-84-6
 177716-86-8 177716-87-9 177716-91-5 177716-92-6 177716-94-8
 177716-99-3 177717-01-0 177717-03-2 177717-05-4 177717-08-7
 177717-10-1 177717-12-3 188019-19-4, Thallium
 tetrakis[3,5-bis(trifluoromethyl)phenyl]borate 188707-89-3
 191101-32-3 220836-20-4 220836-25-9 225797-12-6 263878-81-5
 263878-82-6 263879-13-6, Lithium tetrakis(2-fluorophenyl)borate
 263879-14-7, Sodium tetrakis(2-fluorophenyl)borate 263879-15-8,
 Silver tetrakis(2-fluorophenyl)borate 263879-16-9, Thallium
 tetrakis(2-fluorophenyl)borate 263879-17-0, Lithium
 tetrakis(3-fluorophenyl)borate 263879-18-1, Silver
 tetrakis(3-fluorophenyl)borate 263879-19-2, Thallium
 tetrakis(3-fluorophenyl)borate 263879-21-6, Ferrocenium
 tetrakis(3-fluorophenyl)borate 263879-24-9, Thallium
 tetrakis(4-fluorophenyl)borate 263879-27-2, Lithium
 tetrakis(3,5-difluorophenyl)borate 263879-31-8 263879-32-9
 263879-33-0 263879-34-1 263879-35-2 263879-36-3 263879-37-4
 263879-39-6 263879-40-9 263879-41-0 263879-45-4 263879-46-5
 263879-47-6 263879-48-7 263879-49-8 263879-50-1 263879-51-2
 263879-52-3 263879-53-4 263879-54-5 263879-55-6 263879-56-7
 263879-57-8 263879-58-9 263879-59-0 263879-60-3 263879-61-4
 263879-62-5 263879-63-6 263879-64-7 263879-65-8 263879-66-9
 263879-67-0 263879-68-1 263879-69-2 263879-70-5 263879-71-6
 263879-72-7 263879-73-8 263879-74-9 263879-75-0 263879-76-1
 263879-78-3 263879-79-4 263879-80-7 263879-81-8 263879-82-9
 263879-84-1 263879-85-2 263879-86-3 263879-87-4 263879-88-5
 263879-89-6 263879-90-9 263879-91-0 263879-92-1 263879-93-2
 263879-94-3 263879-95-4 263879-96-5 263879-97-6 263879-98-7
 263879-99-8 263880-00-8
 (weakly coordinating counterion component; transition metal
 complexes stabilized by weakly coordinating counterions for
 catalysts for polymerization of cycloolefins)

OS.CITING REF COUNT: 28 THERE ARE 28 CAPLUS RECORDS THAT CITE THIS
 RECORD (29 CITINGS)
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L39 ANSWER 6 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2003:143381 HCPLUS Full-text
 DOCUMENT NUMBER: 138:187508
 TITLE: Preparation of aromatic diamines by dimerization
 of aromatic halides
 INVENTOR(S): Kawamura, Hisayuki; Moriwaki, Fumio
 PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003055320	A	20030226	JP 2001-247018 ---	20010816
CN 1521160	A	20040818	CN 2003-103880 ---	20030214
CN 100410232	C	20080813		
PRIORITY APPLN. INFO.:			JP 2001-247018	A 20010816

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OTHER SOURCE(S): MARPAT 138:187508

ED Entered STN: 26 Feb 2003

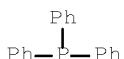
AB Ar₁Ar₂NAr₃Ar₃NAr₁Ar₂ [Ar₁, Ar₂ = (un)substituted 5- to 30-membered monovalent aromatic group; Ar₃ = (un)substituted 5- to 30-membered divalent aromatic group; X = halo], useful as materials for heat-resistant **electroluminescent** devices and charge-transfer agents for electrophotog. photoreceptors, are prepared by dimerization of Ar₁Ar₂NAr₃X (Ar₁-Ar₃ = same as above; X = halo). Thus, NiCl₂ was treated with Ph₃P, Zn powder, and KI at 70-80° in vacuo, mixed with THF, and treated with N,N-di(4-diphenyl)-4-bromoaniline/THF at 65-70° for 10 h to give 64% N,N,N',N'-tetrakis(4-diphenyl)-4,4'-benzidine, vs. 3%, when prepared from N,N'-bis(4-diphenyl)-4,4'-benzidine and 4-iodobiphenyl.

IT 603-35-0, Triphenylphosphine, uses

(preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



IT 603-34-9, Triphenylamine

(preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



IC ICM C07C209-68

ICS C07C211-54; C07C211-58; C07D207-34; C07D213-74; C07D215-38; C07D271-10; C07D307-66; C07B061-00

CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 73, 74ST arom diamine prepn material **electroluminescent** device;
charge transfer electrophotog photoreceptor material diamine prepn;
nickel catalyst dimerization arom halideIT Electrophotographic photoconductors (photoreceptors)
(charge-transfer agents for; preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)IT Phosphines
(complexes, with transition metals; preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)IT Dimerization catalysts
Electroluminescent devices
(preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal

complexes as dimerization catalysts)

IT Aryl halides
 (preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

IT Transition metal complexes
 (with phosphines; preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

IT 603-35-0, Triphenylphosphine, uses 7718-54-9, Nickel chloride, uses
 (preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

IT 145898-89-1P 164724-35-0P 194727-77-0P 214338-27-9P
 (preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

IT 90-14-2, 1-Iodonaphthalene 92-52-4, Biphenyl, reactions 92-86-4, 4,4'-Dibromobiphenyl 103-88-8 106-40-1, p-Bromoaniline 122-39-4, Diphenylamine, reactions 591-50-4, Iodobenzene 603-34-9, Triphenylamine
 (preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

IT 1591-31-7P, 4-Iodobiphenyl 29325-58-4P 38257-52-2P,
 4-Iidotriphenylamine 54446-36-5P, 4-Bromodiphenylamine
 138310-84-6P 202831-65-0P 499128-71-1P 499128-72-2P
 (preparation of aromatic diamines as materials for charge-transfer agents and **electroluminescent** devices with transition metal complexes as dimerization catalysts)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L39 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2000:824318 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:5250
 TITLE: Organic semiconductors based on statistical copolymers
 INVENTOR(S): Sage, Ian Charles; Wood, Emma Louise; Feast, William James; Peace, Richard John
 PATENT ASSIGNEE(S): The Secretary of State for Defence, UK
 SOURCE: PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000069931	A1	20001123	WO 2000-GB1636	20000427 <--
W: GB, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
GB 2363384	A	20011219	GB 2001-24379	20000427 <--
GB 2363384	B	20031029		
EP 1183287	A1	20020306	EP 2000-927461	20000427

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EP 1183287	B1	20050126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002544345	T	20021224	JP 2000-618346	20000427
<--				
AT 287906	T	20050215	AT 2000-927461	20000427
<--				
US 6642332	B1	20031104	US 2002-959670	20020430
<--				
PRIORITY APPLN. INFO.:			GB 1999-10963	A 19990512
<--				
			WO 2000-GB1636	W 20000427
<--				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 24 Nov 2000

AB This invention relates to statistical copolymers $[(CAXCH_2)_m(CH_2CBZ)_j]Q$ and their use in organic semiconductor devices: wherein m and j are the average number of repeat units of A and B such that: $m = 0.1-0.9$, $j = 1-m$, $Q = 10-50000$; A and B are independently selected from hole transporting groups and electron transporting groups and are statistically distributed along the polymer chain; X and Z are independently selected from H, CN, F, Cl, Br, CO₂CH₃. The polymers are useful in LEDs. A copolymer was prepared from 1,2-diphenyl-6-vinylquinoxaline and 4-vinyltriphenylamine.

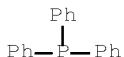
IT 603-34-9, Triphenylamine 603-35-0,
Triphenylphosphine, reactions
(organic semiconductors based on statistical copolymers)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS
CN Phosphine, triphenyl- (CA INDEX NAME)



IC ICM C08F212-14
ICS C08F212-32; H05B033-12; H01B001-12

CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 76

IT Electroluminescent devices
Photorefractive materials
(organic semiconductors based on statistical copolymers)

IT 75-36-5, Acetylchloride 128-08-5, NBS 134-81-6, Benzil 496-72-0,
1,2-Diamino-4-methylbenzene 603-34-9, Triphenylamine
603-35-0, Triphenylphosphine, reactions 21510-43-0
(organic semiconductors based on statistical copolymers)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L39 ANSWER 8 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2000:585508 HCPLUS Full-text
 DOCUMENT NUMBER: 133:185625
 TITLE: Electroluminescent
 bis(aminostyryl)benzene compounds, their synthetic
 intermediates, and manufacture of the compounds
 INVENTOR(S): Ichimura, Mari; Tamura, Shinichiro; Ishibashi,
 Tadashi; Takada, Kazunori
 PATENT ASSIGNEE(S): Sony Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 148 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

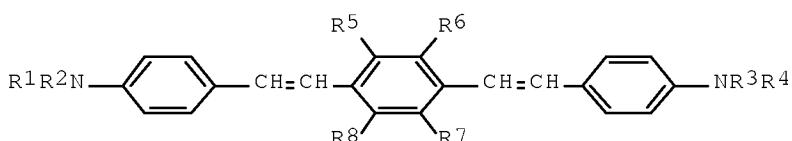
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000230132	A	20000822	JP 1999-312069 ---<--	19991102
JP 4411708	B2	20100210		
US 6337167	B1	20020108	US 1999-455724 ---<--	19991206
US 6525212	B1	20030225	US 2000-704960 ---<--	20001102
US 20030060652	A1	20030327	US 2002-228019 ---<--	20020826
US 20030069437	A1	20030410	US 2002-227671 ---<--	20020826
US 6979746	B2	20051227		
US 20030073863	A1	20030417	US 2002-227711 ---<--	20020826
JP 2009040792	A	20090226	JP 2008-232374 ---<--	20080910
JP 4386140	B2	20091216		
PRIORITY APPLN. INFO.:			JP 1998-347561 ---<--	A 19981207
			JP 1999-312069 ---<--	A 19991102
			US 1999-455724 ---<--	A2 19991206
			US 2000-704960 ---<--	A3 20001102

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 133:185625

ED Entered STN: 23 Aug 2000

GI

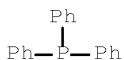


AB The bis(aminostyryl)benzenes are those represented as I (R1-R4 = aryls; R5-R8 involves cyano, NO₂, halogen; other Markush structures corresponding to the compds. are also claimed). The compds. are manufactured by Wittig-Horner reaction or Wittig reaction of the claimed intermediates and the intermediates may be manufactured by coupling reaction. The compds. showing yellow to red color electroluminescence are suitable for display device.

IT 603-35-0, Triphenylphosphine, reactions
(for manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

RN 603-35-0 HCPLUS

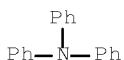
CN Phosphine, triphenyl- (CA INDEX NAME)



IT 603-34-9
(intermediate; manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



IC ICM C09B023-00
ICS C09B023-00; C07C211-56; C07C217-92; C07C223-06; C07C253-30;
C07C255-51; C07F009-40; C07F009-54; C09K011-06; H05B033-14

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

ST yellow red electroluminescence bisaminostyrylbenzene manuf;
electroluminescent device bisaminostyrylbenzene; Wittg Horner reaction bisaminostyrylbenzene

IT Wittig reaction
(Wittig-Horner reaction; for manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT Coupling reaction
Wittig reaction
(for manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT Electroluminescent devices
(manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT 62-53-3, Benzenamine, reactions 603-35-0,
Triphenylphosphine, reactions 288627-04-3
(for manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT 4316-52-3P 4316-53-4P 20440-94-2P 20440-95-3P 42906-19-4P
89115-20-8P 89115-21-9P
(intermediate; manufacture of bis(aminostyryl)benzenes showing yellow to

red electroluminescence for display device)

IT 603-34-9 4181-05-9 4316-50-1 4316-51-2 36809-23-1
 61231-45-6 87755-82-6 131660-61-2 138310-87-9 178477-23-1
 288626-94-8 288626-95-9 288626-96-0 288626-97-1 288626-98-2
 288626-99-3 288627-00-9 288627-01-0 288627-02-1
 (intermediate; manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT 251101-60-7P 251349-04-9P 253868-17-6P 253868-91-6P
 288626-78-8P 288626-79-9P 288626-80-2P 288626-81-3P
 288626-82-4P 288626-83-5P 288626-84-6P 288626-85-7P
 288626-86-8P 288626-87-9P 288626-88-0P 288626-89-1P
 (manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT 288626-90-4 288626-91-5 288626-92-6 288626-93-7
 (manufacture of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

L39 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1998:604764 HCAPLUS Full-text

DOCUMENT NUMBER: 129:224604

ORIGINAL REFERENCE NO.: 129:45495a, 45498a

TITLE: Silicon-containing compounds and organic electroluminescent devices using them

INVENTOR(S): Ueda, Masato; Yahagi, Isao; Kitano, Makoto

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 861845	A2	19980902	EP 1998-103458 ----- <--	19980227
EP 861845	A3	20001004		
EP 861845	B1	20030528		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11217392	A	19990810	JP 1998-27122 ----- <--	19980209
JP 3873424	B2	20070124		
TW 546301	B	20030811	TW 1998-87101842 ----- <--	19980211
US 6369258	B1	20020409	US 1998-33084 ----- <--	19980302
US 20020115877	A1	20020822	US 2002-62665 ----- <--	20020205
US 6696588	B2	20040224		
PRIORITY APPLN. INFO.:			JP 1997-46719 ----- JP 1997-329011 ----- US 1998-33084 ----- <--	A 19970228 A 19971128 A3 19980302

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 129:224604

ED Entered STN: 24 Sep 1998

AB The invention provides a novel Si-containing compound having an oxidation potential of 0.3-1.5 V on the basis of a standard H electrode, in which ≥ 1 alkoxy group is bonded to a Si atom and ≥ 1 aromatic amine group is also bonded to the Si atom. An organic electroluminescent device having excellent mech. and elec. contact between an electrode and an organic layer is also provided by treating the surface of an anode with using a surface-treating agent comprising the above Si-containing compound

IT 603-34-9 603-35-0, Triphenylphosphine, reactions
(reactant; in formation of silicon-containing compds. for organic electroluminescent devices)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



IC ICM C07F007-18
ICS C09K011-06; H05B033-14

CC 76-12 (Electric Phenomena)
Section cross-reference(s): 29, 73

ST silicon compd org electroluminescent device

IT Polysilanes
(preparation of; for organic electroluminescent devices)

IT Electroluminescent devices
(silicon-containing compds. for)

IT 20441-06-9P 36809-26-4P, N-(4-Bromophenyl)-N-phenyl-aminobenzene
183798-68-7P 194292-05-2P, 4-(N,N-Diphenylamino)phenyllithium
212609-48-8P
(preparation and reaction of; in formation of silicon-containing compds.

for
organic electroluminescent devices)

IT 623-27-8DP, Terephthalaldehyde, polymers with
triphenylphosphine-bis(bromomethylene)cyclohexadiene reaction product
31324-77-3P, Poly(Methylphenyldichlorosilane) 76188-55-1P,
Poly(methylphenylsilylene) 183798-70-1P,
Ethyl(4-(N,N-diphenylamino)phenyl)silane, homopolymer 183798-72-3P,
Ethyl(4-(N,N-diphenylamino)phenyl)silane, homopolymer, sru
212609-43-3DP, 2,5-Dioctyloxy-3,6-bis(bromomethylene)-1,4-
cyclohexadiene, reaction products with triphenylphosphine,
polymers with terephthalaldehyde 212609-44-4P 212609-45-5P
212609-46-6P 212609-47-7P, 1-(Triethoxysilyl)pyrene
(preparation of; for organic electroluminescent devices)

IT 109-72-8, n-Butyllithium, reactions 115-21-9, Ethyltrichlorosilane
128-08-5, N-Bromosuccinimide 149-74-6, Methylphenyldichlorosilane
531-91-9, N,N'-Diphenyl-1,1'-biphenyl-4,4'-diamine 603-34-9

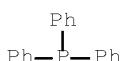
603-35-0, Triphenylphosphine, reactions 624-31-7,
 4-Iidotoluene 1714-29-0, 1-Bromopyrene 4667-99-6,
 Chlorotriethoxysilane 15546-43-7 212609-43-3
 (reactant; in formation of silicon-containing compds. for organic
 electroluminescent devices)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS
 RECORD (7 CITINGS)

L39 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1995:622360 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:69088
 ORIGINAL REFERENCE NO.: 123:12113a,12116a
 TITLE: The quenching of porous silicon photoluminescence
 by Group 15 triaryl derivatives: effects of
 surface photo-oxidation
 AUTHOR(S): Sweryda-Krawiec, Beata; Coffer, Jeffery L.
 CORPORATE SOURCE: Dep. Chem., Texas Christian Univ., Fort Worth, TX,
 76129, USA
 SOURCE: Journal of the Electrochemical Society (1995), 142(6), L93-L95
 CODEN: JESOAN; ISSN: 0013-4651
 PUBLISHER: Electrochemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 20 Jun 1995
 AB This work centers on an evaluation of the impact of photo-oxidation of the
 porous Si (PS) surface on the ability of the triaryl derivs. of the group 15
 elements EPh₃ (E = N, P, As) to quench the photoluminescence of porous
 silicon. The ability of porous Si to be quenched by these Group 15 triaryl
 derivs. is monitored with regard to four different surface treatments: freshly
 prepared porous Si, (i) without and (ii) with illumination to steady-state
 photoluminescence intensity; porous Si aged in ambient air for one month,
 (iii) without and (i.v.) with illumination to steady-state PL conditions. We
 specifically employ as a criterion for such an anal. the magnitude(s) of the
 maximum percentage of the integrated PL which can be quenched by a given Lewis
 base for a particular surface, and compare the trends observed with reported
 gas phase proton affinities.
 IT 603-34-9, Triphenylamine 603-35-0,
 Triphenylphosphine, properties
 (quenching of porous silicon photoluminescence by Group 15 triaryl
 derivs. and effects of surface photo-oxidation)
 RN 603-34-9 HCAPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCAPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)

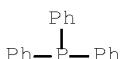


CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 IT Luminescence quenching
 Oxidation, photochemical
 Surface
 (quenching of porous silicon photoluminescence by Group 15 triaryl derivs. and effects of surface photo-oxidation)
 IT 603-32-7, Triphenylarsine 603-34-9, Triphenylamine
 603-35-0, Triphenylphosphine, properties 7440-21-3, Silicon, properties
 (quenching of porous silicon photoluminescence by Group 15 triaryl derivs. and effects of surface photo-oxidation)
 OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L39 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1990:412581 HCAPLUS Full-text
 DOCUMENT NUMBER: 113:12581
 ORIGINAL REFERENCE NO.: 113:2139a,2142a
 TITLE: Surface-bound adducts of cadmium selenide with EPh3 (E = N, P, As)
 AUTHOR(S): Murphy, Catherine Jones
 CORPORATE SOURCE: Univ. Wisconsin, Madison, WI, USA
 SOURCE: Journal of the Electrochemical Society (1990), 137(4), 220C-222C
 CODEN: JESOAN; ISSN: 0013-4651
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 06 Jul 1990
 AB Photoluminescence of CdSe excited by laser irradiation was measured in pure toluene and toluene solns. containing the ligating groups EPh3 (E is N, P, or As). The photoluminescence observed in pure toluene is enhanced by the addition of EPh3 in a manner consistent with adduct formation. Depletion width changes in the CdSe reflect the relative basicities of the EPh3 compds., maximizing with PPh3. Adduct formation consts. do not correlate with depletion width changes. The largest constant is found for AsPh3.
 IT 603-34-9, Triphenylamine 603-35-0, Triphenylphosphine, reactions
 (reaction of, with cadmium selenide in toluene solution, surface-bound adduct formation by)
 RN 603-34-9 HCAPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)

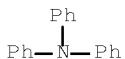


RN 603-35-0 HCAPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)

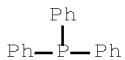


CC 66-4 (Surface Chemistry and Colloids)
 IT Luminescence
 (of cadmium selenide in toluene solns. of triphenylamine and
 triphenylphosphine and triphenylarsine, surface-bound adduct
 formation in relation to)
 IT 603-32-7, Triphenylarsine 603-34-9, Triphenylamine
 603-35-0, Triphenylphosphine, reactions
 (reaction of, with cadmium selenide in toluene solution, surface-bound
 adduct formation by)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
 RECORD (1 CITINGS)

L39 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1986:236607 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 104:236607
 ORIGINAL REFERENCE NO.: 104:37335a,37338a
 TITLE: Electrogenerated chemiluminescence in mechanistic
 investigations of electroorganic reactions. Part
 VI. Sensitive detection of cation radicals by
 bis[1,2,3-trimethyl-2,3-dihydrobenzimidazolyl-(2)]
 /luminophor systems
 AUTHOR(S): Pragst, F.; Niazymbetov, M.
 CORPORATE SOURCE: Sekt. Chem., Humboldt-Univ., Berlin, DDR-1040,
 Ger. Dem. Rep.
 SOURCE: Journal of Electroanalytical Chemistry and
 Interfacial Electrochemistry (1986),
 197(1-2), 245-64
 CODEN: JEIEBC; ISSN: 0022-0728
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 27 Jun 1986
 AB Cation radicals D.+, formed as the primary products in an anodic process,
 produce a luminescence signal in the potential region of the voltammetric wave
 of D, if the oxidation is carried out in the presence of bis[1,2,3-trimethyl-
 2,3-dihydrobenzimidazolyl-(2)], B2, and a suitable luminophor, A, such as
 9,10-diphenylanthracene (DPA),
 2-phenyl-4-p-biphenyl-1,3,4-oxadiazole (PBD) or other highly fluorescent
 aromatic hydrocarbons, oxazoles or oxadiazoles. The use of this luminescence
 signal for a sensitive detection of D.+ was tested at a rotating disk
 electrode in a 1:1 MeCN + PhMe mixture as the solvent for a series of aromatic
 and aliphatic amines, Δ 2-pyrazolines, carbazole, indole, 1,4-dihdropyridines,
 phenols, methoxybenzenes and tri-arylphosphines. For stable cation radicals
 the luminescence-potential curve shows a prewave at the foot of the
 voltammetric wave of D and a luminescence plateau in the limiting current
 region. In the case of a chemical reaction of D.+ the plateau is diminished
 or vanishes completely and the prewave changes to a prepeak between 20 and 100
 mV below E1/2ox(D). The prepeak also decreases with increasing rate of the
 subsequent reaction, but is still seen for very short lived D.+, e.g. for
 hydroquinone, carbazole or triphenylphosphine. The advantages and the
 restrictions of the method are discussed in the context of the luminescence
 mechanism.
 IT 603-34-9 603-35-0, analysis
 (anodic luminescence of, cation radical detection in
 relation to)
 RN 603-34-9 HCAPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)



CC 80-6 (Organic Analytical Chemistry)
 Section cross-reference(s): 22, 72, 73
 ST cation radical anodic product luminescence;
 trimethyldihydrobenzimidazolyl luminophor detection cation
 radical; potential oxidn arom compd luminescence
 IT Electric potential
 (luminescence in relation to, of aromatic compds.)
 IT Luminescence, chemi-
 (electrochemi-, of aromatic compds.)
 IT 62-53-3, analysis 86-74-8 90-05-1 91-16-7 93-04-9 100-22-1
 100-61-8, analysis 102-56-7 110-91-8, properties 120-72-9,
 analysis 121-44-8, analysis 121-69-7, analysis 122-39-4,
 analysis 123-31-9, analysis 135-19-3, analysis 150-76-5
 150-78-7 603-34-9 603-35-0, analysis
 701-56-4 742-01-8 855-38-9 1104-21-8 1137-79-7 1197-19-9
 1450-62-0 1539-51-1 2515-55-1 2515-58-4 3274-37-1 6969-06-8
 10252-45-6
 (anodic luminescence of, cation radical detection in
 relation to)
 IT 94887-83-9
 (cation radical detection by anodic luminescence in
 presence of)
 IT 17221-73-7 21296-82-2 34471-10-8 34475-46-2, analysis
 34478-03-0 34507-04-5, analysis 34527-55-4 35653-35-1, analysis
 36752-99-5 53318-00-6 55012-64-1 57212-28-9, analysis
 60465-95-4 60715-77-7 61987-38-0 61987-49-3 61987-58-4
 61987-59-5 62005-72-5 63224-13-5, analysis 65018-31-7
 67977-56-4, analysis 68128-20-1, analysis 72835-09-7 83078-27-7
 102526-86-3 102526-87-4 102526-88-5, analysis 102526-89-6
 102526-90-9 102526-91-0 102573-16-0
 (detection of electrogenerated, luminescence in)
 IT 197-61-5 206-44-0 517-51-1 852-38-0 1499-10-1 1806-34-4
 2083-09-2 7229-88-1
 (electrochem. and spectroscopic properties of, luminophor
 action in relation to)
 IT 1499-10-1
 (luminophor, cation radical detection in relation to)
 OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS
 RECORD (6 CITINGS)

L39 ANSWER 13 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1983:479485 HCPLUS Full-text
 DOCUMENT NUMBER: 99:79485
 ORIGINAL REFERENCE NO.: 99:12145a,12148a

TITLE: Electronic transitions of molecules with heteroatoms
 AUTHOR(S): Smirnov, S. G.; Konoplev, G. G.; Rodionov, A. N.; Godik, V. A.
 CORPORATE SOURCE: USSR
 SOURCE: Zhurnal Prikladnoi Spektroskopii (1983), 39(1), 93-8
 CODEN: ZPSBAX; ISSN: 0514-7506
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian

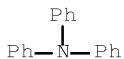
ED Entered STN: 12 May 1984

AB A systematic study of the spectral and luminescent properties of the Ph derivs. of the elements of IV and V Groups of the Periodic System was undertaken. The main characteristics, quantum yields of fluorescence and phosphorescence, and lifetimes of the electronic excited state were determined. Matrix elements of the spin-orbit interaction operator were calculated and compared with the values obtained from the exptl. data. Estns. of the radiative and nonradiative rates have been made. The magnitudes of the spin-orbit interaction operator matrix elements and those of the intersystem conversion rates depend not only on the atomic number of the heteroatom but also on the orbital nature of excited states which is determined by the $1,\pi^*$ - configuration contribution.

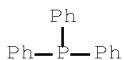
IT 603-34-9 603-35-0, properties
 (electronic transitions of)

RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

ST electronic transition heteroatom; luminescence heteroatom
 mol

IT 603-32-7 603-33-8 603-34-9 603-35-0,
 properties 603-36-1
 (electronic transitions of)

L39 ANSWER 14 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1983:470889 HCPLUS Full-text

DOCUMENT NUMBER: 99:70889

ORIGINAL REFERENCE NO.: 99:11015a,11018a

TITLE: Spectral-luminescence properties and
 nature of the electronic states of molecules with
 heteroatoms

AUTHOR(S): Smirnov, S. G.; Konoplev, G. G.; Rodionov, A. N.;
 Godik, V. A.
 CORPORATE SOURCE: USSR
 SOURCE: Zhurnal Prikladnoi Spektroskopii (1993),
 38(6), 918-23
 CODEN: ZPSBAX; ISSN: 0514-7506

DOCUMENT TYPE: Journal
 LANGUAGE: Russian

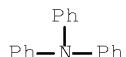
ED Entered STN: 12 May 1984

AB In this abstract l is a nonbonding AO. The absorption and emission properties of Ph3M (M = N, P, As, Sb, Bi) were studied exptl. and theor. by CNDO/S CI calcns. The role of charge-transfer (l,π^*) states in the formation of excited electronic states decreases with increasing atomic number of M. The spectral properties are determined mainly by the l,π^* contribution. The importance of σ orbitals in the formation of excited states of nonplanar mols. is shown.

IT 603-34-9 603-35-0, properties
 (absorption and luminescence spectra of, theor. study of)

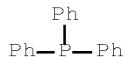
RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



CC 29-8 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 22

ST spectra Group VA triphenyl compd; luminescence Group VA
 triphenyl compd; MO Group VA triphenyl compd

IT 603-32-7 603-33-8 603-34-9 603-35-0,
 properties 603-36-1
 (absorption and luminescence spectra of, theor. study of)

L39 ANSWER 15 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1982:553356 HCPLUS Full-text

DOCUMENT NUMBER: 97:153356

ORIGINAL REFERENCE NO.: 97:25399a,25402a

TITLE: Triboluminescence of crystals containing the
 triphenyl group

AUTHOR(S): Chandra, B. P.; Zink, Jeffrey I.

CORPORATE SOURCE: Dep. Chem., Univ. California, Los Angeles, CA,
 90024, USA

SOURCE: Journal of Physical Chemistry (1982),
 86(21), 4138-41

CODEN: JPCHAX; ISSN: 0022-3654

DOCUMENT TYPE: Journal

LANGUAGE: English

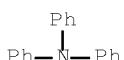
ED Entered STN: 12 May 1984

AB The triboluminescence of crystals containing the tri-Ph group is studied. The triboluminescence emission occurs only during the movement of cracks in the crystals. The triboluminescence spectra of triphenylamine, triphenylphosphine, and triphenylarsine are similar to the photoluminescence spectra of the crystals. The triboluminescence spectra of triphenylmethane and chlorotriphenylmethane consists of both the luminescence bands of the crystals and emission from the 2nd pos. group of N. The triboluminescence spectra of triphenylphosphine oxide consists of only the N emission. The triboluminescence excitation mechanism is discussed.

IT 603-34-9 603-35-0, properties
 (triboluminescence of)

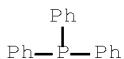
RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

ST triboluminescence triphenyl group; luminescence tribo triphenyl group

IT Luminescence

(tribo-, of tri-Ph group compds.)

IT 76-83-5 115-86-6 519-73-3 596-43-0 603-32-7 603-34-9
 603-35-0, properties 791-28-6
 (triboluminescence of)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS
 RECORD (5 CITINGS)

L39 ANSWER 16 OF 18 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1981:531801 HCPLUS Full-text

DOCUMENT NUMBER: 95:131801

ORIGINAL REFERENCE NO.: 95:22067a,22070a

TITLE: Charge-transfer complexes of π -donors in
 low-temperature matrixes - a study by electronic
 emission spectroscopy

AUTHOR(S): Sennikov, P. G.; Kuznetsov, V. A.; Egorochkin, A.
 N.

CORPORATE SOURCE: Inst. Chem., Gorkiy, USSR

SOURCE: Advances in Molecular Relaxation and Interaction
 Processes (1981), 20(1-2), 89-99

CODEN: AMRPDF; ISSN: 0378-4487

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

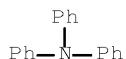
AB Static quenching ($T = 77K$) of luminescence of naphthalene derivs. via CT complexes in the solid state with tetracyanoethylene has been studied. The linear correlation between the logarithm of KQ quenching constant and ν_{CT} frequency in electronic absorption spectra of CT complexes has been observed. Equilibrium consts. of complex formation K_c and other thermodn. functions of CT complexes have been determined. A linear correlation occurs between KQ and K_c . These results support the assumption that the KQ quenching constant is identical to the equilibrium constant of complex formation. The observed regularity has been used for the investigation of complex formation of Ph derivs. of Group IV and V elements with mol. O.

IT 603-34-9 603-35-0, reactions

(charge-transfer complexation of, with oxygen or tetracyanoethylene)

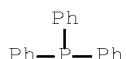
RN 603-34-9 HCPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



CC 22-2 (Physical Organic Chemistry)

ST charge transfer luminescence quenching; naphthalene luminescence quenching tetracyanoethylene; UV charge transfer luminescence quenching

IT Equilibrium

(for charge-transfer complexation of naphthalenes with tetracyanoethylene, luminescence quenching in relation to)

IT Ultraviolet and visible spectra

(of charge-transfer complexes of naphthalenes with tetracyanoethylene, luminescence quenching in relation to)

IT Luminescence quenching

(of naphthalene derivs. by tetracyanoethylene, charge-transfer complexation in relation to)

IT Charge-transfer complexes

(of naphthalene derivs. with tetracyanoethylene, luminescence quenching by)

IT 603-32-7 603-34-9 603-35-0, reactions

603-36-1 630-76-2 1048-05-1 1048-08-4

(charge-transfer complexation of, with oxygen or tetracyanoethylene)

IT 90-11-9 90-15-3 91-20-3, properties 91-57-6 93-04-9 134-32-7

135-19-3, properties 573-97-7 613-62-7 3401-47-6 16239-18-2

18081-08-8 18753-46-3 53553-82-5 79054-26-5

(luminescence of, quenching by charge-transfer complexation with tetracyanoethylene)

IT 670-54-2, properties
 (quenching of naphthalene luminescence by, by charge-transfer complexation)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L39 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1978:441789 HCAPLUS Full-text

DOCUMENT NUMBER: 89:41789

ORIGINAL REFERENCE NO.: 89:6469a,6472a

TITLE: Systematics of molecules based on spectral-luminescent properties. II. Spectral-luminescent properties of compounds with heteroatoms [($\sigma\pi v$), ($\sigma\pi l$), and ($\sigma\pi lv$) classes]

AUTHOR(S): Rogozhin, K. L.; Rodionov, A. N.; Shigorin, D. N.

CORPORATE SOURCE: Fiz.-Khim. Inst. im. Karpova, Moscow, USSR

SOURCE: Zhurnal Fizicheskoi Khimii (1978), 52(5), 1121-5

CODEN: ZFKHA9; ISSN: 0044-4537

DOCUMENT TYPE: Journal

LANGUAGE: Russian

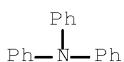
ED Entered STN: 12 May 1984

AB The electronic spectral properties of Ph4M (M = Si, Ge, Sn) and Me3M' (M' = B, Al, Ga, N, P, As) were determined by the nature and the relative position of the free orbitals of the heteroatom or those occupied by the unshared electron pair with respect to the orbitals of the π system. The atomic number of the heteroatom was also a factor.

IT 603-34-9 603-35-0, properties
 (electronic spectrum and luminescence of)

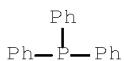
RN 603-34-9 HCAPLUS

CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCAPLUS

CN Phosphine, triphenyl- (CA INDEX NAME)



CC 22-2 (Physical Organic Chemistry)

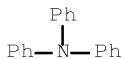
ST organometallic spectra luminescence

IT Organometallic compounds
 (electronic spectrum and luminescence of)

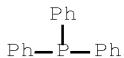
IT 108-88-3, properties 519-73-3 595-90-4 603-32-7
 603-34-9 603-35-0, properties 841-76-9
 960-71-4 1048-05-1 1048-08-4 1088-02-4

(electronic spectrum and luminescence of)

L39 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1957:75587 HCAPLUS Full-text
 DOCUMENT NUMBER: 51:75587
 ORIGINAL REFERENCE NO.: 51:13579i,13580a-b
 TITLE: Fluorescence efficiencies of organic compounds
 AUTHOR(S): Furst, Milton; Kallmann, Hartmut; Brown, Felix H.
 CORPORATE SOURCE: New York Univ., New York, NY
 SOURCE: Journal of Chemical Physics (1957), 26,
 1321-32
 CODEN: JCPSA6; ISSN: 0021-9606
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 ED Entered STN: 22 Apr 2001
 AB The relative fluorescence efficiencies of 334 organic compds. were measured in solution under high-energy and ultraviolet excitations. Good correlation between the relative fluorescence efficiencies under both types of radiation was observed for the compds. in solution. The high-energy fluorescence was affected by O and the solvent mol. was influenced to a greater extent than the solute. Solid and solution fluorescence were not well correlated. The NO₂ group produced a decrease in the emitted light in all compds. Cl and Br, which generally decreased the fluorescence, increased the fluorescence in compds. such as the 9,10-anthracene derivs. Some substitutions can be visualized as screening the mol. from interactions which induce nonradiative transitions. The influence of substitutions on the fluorescence of a solute did not depend on the solvent so long as the solvent was capable of transferring energy effectively.
 IT 603-34-9, Triphenylamine 603-35-0, Phosphine,
 triphenyl-
 (fluorescence efficiency of)
 RN 603-34-9 HCAPLUS
 CN Benzenamine, N,N-diphenyl- (CA INDEX NAME)



RN 603-35-0 HCAPLUS
 CN Phosphine, triphenyl- (CA INDEX NAME)



CC 3 (Electronic Phenomena and Spectra)
 IT 53-70-3, Dibenz[a,h]anthracene 60-09-3, Aniline, p-phenylazo-
 61-82-5, 1H-1,2,4-Triazol-3-amine 64-04-0, Phenethylamine 68-12-2,
 Formamide, N,N-dimethyl- 75-25-2, Bromoform 76-03-9, Acetic acid,
 trichloro-, 8-quinolinol derivative 76-83-5, Methane, chlorotriphenyl-
 76-93-7, Benzilic acid 77-73-6, 4,7-Methanoindene,
 3a,4,7,7a-tetrahydro- 78-10-4, Ethyl silicate, Et₄SiO₄ 80-56-8,
 2-Pinene 81-88-9, Rhodamine B 82-05-3, 7H-Benz[de]anthracen-7-one
 83-32-9, Acenaphthene 85-06-3, Benzo[f]quinoline, 3-methyl-

86-29-3, Acetonitrile, diphenyl- 86-74-8, Carbazole 90-33-5,
 Umbelliferone, 4-methyl- 90-47-1, Xanthen-9-one 91-64-5, Coumarin
 92-06-8, m-Terphenyl 92-51-3, Bicyclohexyl 92-85-3, Thianthrene
 95-59-0, p-Dioxane, 2,3-dichloro- 96-09-3, Benzene, (epoxyethyl)-
 101-61-1, Aniline, 4,4'-methylenebis[N,N-dimethyl- 101-75-7,
 Diphenylamine, 4-phenylazo- 101-77-9, Aniline, 4,4'-methylenedi-
 101-81-5, Methane, diphenyl- 102-09-0, Carbonic acid, diphenyl ester
 103-30-0, Stilbene, trans- 103-33-3, Azobenzene 103-82-2, Acetic
 acid, phenyl- 109-97-7, Pyrrole 110-02-1, Thiophene 110-89-4,
 Piperidine 110-91-8, Morpholine 111-77-3, Ethanol,
 2-(2-methoxyethoxy)- 122-25-8, Salicylic acid, 5,5'-methylenedi-
 122-57-6, 3-Buten-2-one, 4-phenyl- 123-00-2, Morpholine,
 4-(3-aminopropyl)- 127-18-4, Ethylene, tetrachloro- 131-57-7,
 Benzophenone, 2-hydroxy-4-methoxy- 132-65-0, Dibenzothiophene
 136-35-6, Triazene, 1,3-diphenyl- 148-24-3, 8-Quinolinol 150-61-8,
 Ethylenediamine, N,N'-diphenyl- 212-74-8, Tetraphenylene 218-01-9,
 Chrysene 273-53-0, Benzoxazole 326-91-0, 1,3-Butanedione,
 4,4,4-trifluoro-1-(2-thienyl)- 366-18-7, 2,2'-Bipyridine 505-84-0,
 Methane, dipropoxy- 517-51-1, Naphthacene, 5,6,11,12-tetraphenyl-
 519-73-3, Methane, triphenyl- 537-64-4, Mercury, di-p-tolyl-
 544-85-4, Dotriacontane 587-85-9, Mercury, diphenyl- 589-33-3,
 Pyrrole, 1-butyl- 595-90-4, Tin, tetraphenyl- 603-32-7, Arsine,
 triphenyl- 603-33-8, Bismuthine, triphenyl- 603-34-9,
 Triphenylamine 603-35-0, Phosphine, triphenyl- 603-36-1,
 Stibine, triphenyl- 603-48-5, Aniline,
 4,4',4''-methylidynetris[N,N-dimethyl- 613-65-0, Aniline,
 N,N-dimethyl-p-2-naphthylazo- 618-36-0, Benzylamine,
 α-methyl-, dl- 621-96-5, 4,4'-Stilbenediamine 629-35-6,
 Mercury, dibutyl- 630-06-8, Hexatriacontane 630-76-2, Methane,
 tetraphenyl- 632-51-9, Ethylene, tetraphenyl- 632-52-0, Hydrazine,
 tetraphenyl- 646-31-1, Tetacosane 683-18-1, Stannane,
 dibutyldichloro- 688-74-4, Butyl borate, (BuO)3B 852-38-0,
 1,3,4-Oxadiazole, 2-(4-biphenyl)-5-phenyl- 959-36-4,
 Salicylaldehyde, azine 1095-03-0, Phenyl borate 1450-63-1,
 1,3-Butadiene, 1,1,4,4-tetraphenyl- 1600-30-2, Ethane,
 1,2-dichloro-1,1,2,2-tetraphenyl- 2031-67-6, Silane,
 triethoxymethyl- 2051-90-3, Methane, dichlorodiphenyl- 2083-09-2,
 Oxazole, 2,5-bis(4-biphenyl)- 2465-27-2, Auramine 2498-66-0,
 Benz[a]anthracene-7,12-dione 2501-02-2, Stilbene, 4,4'-dinitro-
 2834-79-9, Thiazole, 2-amino-4-(4-biphenyl)- 3029-40-1,
 1,3,5,7-Octatetraene, 1,8-diphenyl- 4418-61-5, Tetrazole, 5-amino-
 4705-34-4, Stilbene, 4,4'-dimethoxy- 4766-57-8, Butyl silicate,
 (BuO)4Si 5440-19-7, Boric acid, tris(2-cyclohexylcyclohexyl) ester
 5440-19-7, Cyclohexanol, 2-cyclohexyl-, borate 6307-92-2, Stilbene,
 2,4,6-trinitro- 7379-28-4, Acetic acid, (ethylenedinitriolo)tetra-,
 sodium salt 7570-38-9, Benzanilide, 4',4'''-vinylenebis-
 15220-85-6, Propene, 2-methyl-, tetramer 16986-83-7, Propionic acid,
 cadmium salt 29036-02-0, Quaterphenyl 38013-07-9, Maleic acid,
 phenyl ester 89298-78-2, Fluoranthene, dibromo- 90114-42-4,
 Guanidine, diphenyl- 120267-63-2,
 2,5-Bis(4-biphenyl)-3-methyloxazolium p-toluenesulfonate
 121193-78-0, Perylene, tetraphenyl- 122766-15-8, Dimethylamine,
 1,1-bis(p-methoxyphenyl)-1'-phenyl- 122766-15-8, Dibenzylamine,
 4-methoxy-α-(p-methoxyphenyl)-
 (fluorescence efficiency of)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
 RECORD (2 CITINGS)

=> d his nofile

(FILE 'HOME' ENTERED AT 09:23:50 ON 09 JUN 2010)

FILE 'HCAPLUS' ENTERED AT 09:23:56 ON 09 JUN 2010

L1 1 SEA SPE=ON ABB=ON PLU=ON US20070031698/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 09:24:13 ON 09 JUN 2010

L2 13 SEA SPE=ON ABB=ON PLU=ON (1044764-63-7/BI OR 1074-24-4/B
I OR 126213-51-2/BI OR 644-97-3/BI OR 7440-02-0/BI OR
7440-05-3/BI OR 7440-70-2/BI OR 845795-81-5/BI OR 845795-82
-6/BI OR 845795-84-8/BI OR 845795-85-9/BI OR 9003-53-6/BI
OR 937-14-4/BI)
ACT NGU659/A

L3 STR

L4 SCR 1609 OR 1741

L5 SCR 2077

L6 SCR 2127

L7 SCR 1918

L8 29859 SEA SSS FUL L3 AND L4 AND L6 NOT (L5 OR L7)

L9 STR

L10 STR

L11 0 SEA SSS SAM L9 AND L10

L12 1 SEA SUB=L8 SSS SAM L9 AND L10

L13 1 SEA SPE=ON ABB=ON PLU=ON 603-35-0/RN

L14 471 SEA SPE=ON ABB=ON PLU=ON 603-35-0/CRN

L15 1 SEA SPE=ON ABB=ON PLU=ON 603-34-9/RN

L16 115 SEA SPE=ON ABB=ON PLU=ON 603-34-9/CRN

L17 0 SEA SPE=ON ABB=ON PLU=ON L14 AND L16

L18 25 SEA SUB=L8 SSS FUL L9 AND L10

SAV L18 NGU659/A

FILE 'HCAPLUS' ENTERED AT 10:02:27 ON 09 JUN 2010

L19 40 SEA SPE=ON ABB=ON PLU=ON L18
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L21 24013 SEA SPE=ON ABB=ON PLU=ON L13
L22 2344 SEA SPE=ON ABB=ON PLU=ON L15
L23 204 SEA SPE=ON ABB=ON PLU=ON L16
L24 322 SEA SPE=ON ABB=ON PLU=ON (L20 OR L21) AND (L22 OR L23)
E POLYMERS, PROPERTIES/CT
L25 67297 SEA SPE=ON ABB=ON PLU=ON "POLYMERS, PROPERTIES"+PFT, NT/CT
L26 1 SEA SPE=ON ABB=ON PLU=ON L24 AND L25
L27 72 SEA SPE=ON ABB=ON PLU=ON L24 AND (OLIGOMER? OR POLYMER?)
L28 2 SEA SPE=ON ABB=ON PLU=ON L27 AND DEV/RL
L29 5 SEA SPE=ON ABB=ON PLU=ON L27 AND OPTIC?/SC, SX
L30 0 SEA SPE=ON ABB=ON PLU=ON L27 AND OPTICAL DEVICE?
QUE SPE=ON ABB=ON PLU=ON LUM!N? OR ELECTROLUM!N? OR
ORGANOLUM!N? OR (ELECTRO OR ORGANO OR ORG#)(2A)LUM!N? OR
LIGHT?(2A)(EMIT? OR EMISSION?) OR EL OR E(W)L OR L(W)E(W)D
L32 11 SEA SPE=ON ABB=ON PLU=ON L27 AND L31
L33 23 SEA SPE=ON ABB=ON PLU=ON L24 AND L31
L34 27 SEA SPE=ON ABB=ON PLU=ON L26 OR (L28 OR L29 OR L30) OR
(L32 OR L33)
L35 20 SEA SPE=ON ABB=ON PLU=ON L34 AND (1840-2006)/PRY, AY, PY

10/568,659

L36 21 SEA SPE=ON ABB=ON PLU=ON L19 AND (1840-2006) /PRY,AY,PY
L37 2 SEA SPE=ON ABB=ON PLU=ON L35 AND L36
L38 21 SEA SPE=ON ABB=ON PLU=ON (L36 OR L37)
L39 18 SEA SPE=ON ABB=ON PLU=ON L35 NOT L38